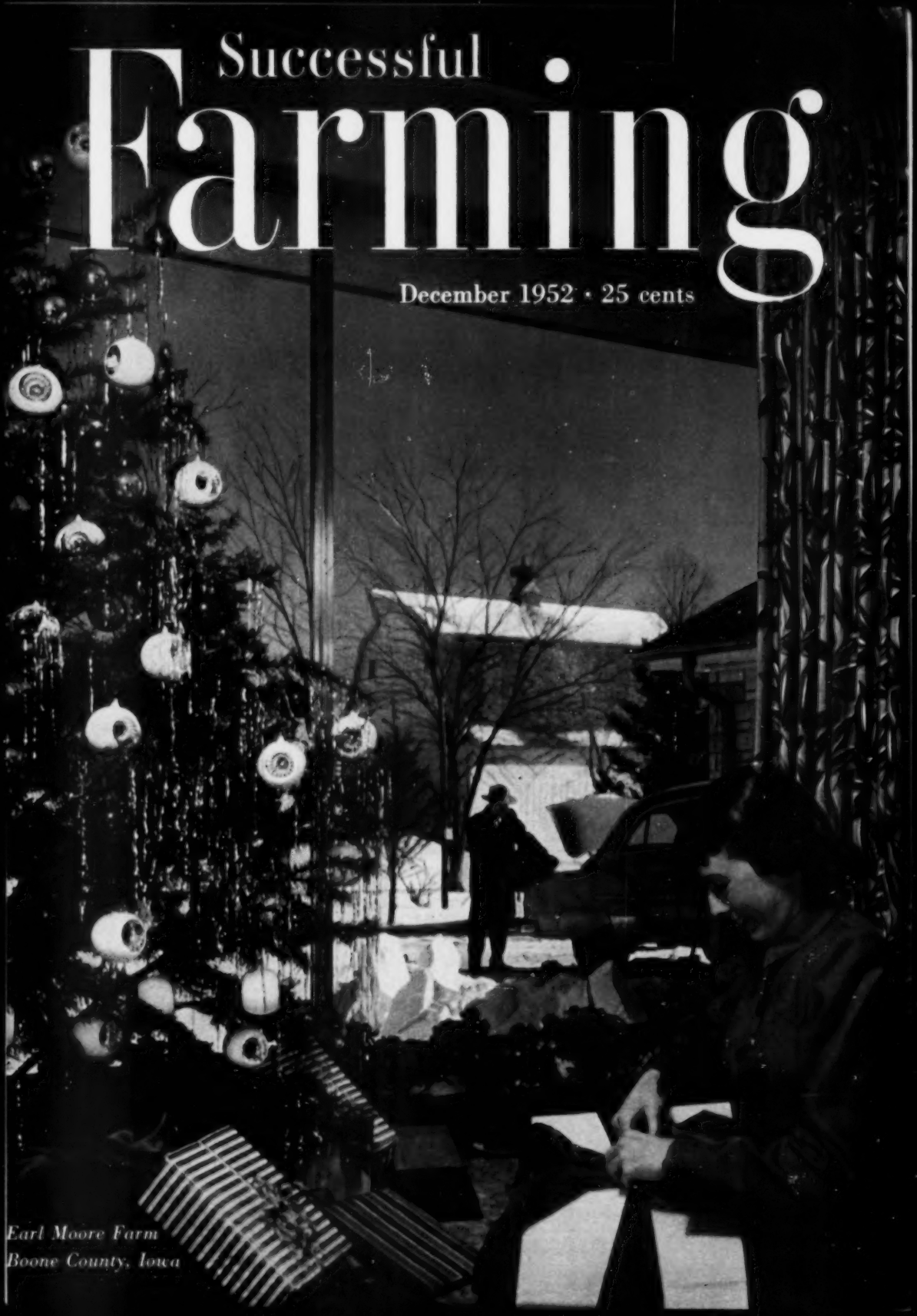
Successful Farming

December 1952 · 25 cents



Earl Moore Farm
Boone County, Iowa

ALLIS-CHALMERS FORAGE HARVESTER

Of all coming crops, the most promising are soil-building forages. Captured at their peak of goodness with a home-owned Forage Harvester, green silo crops preserve all the leafy nutrition, flavor, and succulence that nature puts into the growing plant.

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All-'Round
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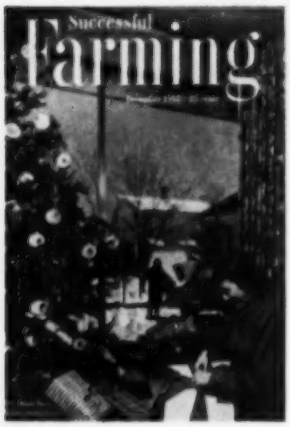
This month



Photograph: Bill Hopkins

Christmas Day is Family Day on the Earl Moore farm, Boone County, Iowa. Excitement runs high as the home folks make last-minute preparations. Marcia, the youngest of four children, is shown putting the finishing touches on a present to go under the traditionally big Christmas tree. Outside, Mr. Moore unloads the last of the Christmas shopping, while in the kitchen Mrs. Moore puts finishing touches on the Christmas dinner.

Other members of the family start rolling in early to get the day's festivities going. Marriage has taken one daughter, Florence, out to California. However, she plans to be on hand on Christmas Day if at all possible. Two other children, Richard and Jean, also are married and live within a few miles of the home farm.

Presents are opened right after the Christmas dinner. Here is where another generation of Moores takes over. Five grandchildren, ranging in age from 9 years to 6 months, complete the Moore family tree. The day's festivities are rounded out by everyone's going on a sleigh ride.

The older Moore children had interesting and varied experiences before settling down to a home life of their own. Richard, a former member of the Army Air Corps, is a graduate of Drake University. Florence is a former United Air Lines stewardess and Jean is a registered nurse.

Marcia, the pert young lady seen on the cover, also is a graduate of Drake University with a fine arts degree. She is now teaching English and speech at a nearby high school. Marcia is "quite a farmerette," according to her mother, and is right at home on a tractor.

To the Moores, farming is more than just a way of making a living—it's a *way* of living. That good farm living reaches its peak on Christmas Day.—*Vernon Schneider.*

Successful Farming

The Dairy Farmer

THE MAGAZINE OF FARM BUSINESS AND FARM HOMES

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Some things never change...

The candles on the tree have given way to electric lights, and many of the ornaments are plastic now instead of glass. You seldom hear the sound of sleigh bells any more.

But the warmth and friendliness of the season and the joy of having your family around you at Christmas time —these things never change.

Nor, over the years, has there ever been any change in the feeling of contentment and well-being that comes of the knowledge that the family group is financially secure.

For well over a century New York Life has been helping families plan ahead, through life insurance, so that they might enjoy the year-'round peace of mind that such security brings.

To the many families who, during the past year, have called upon their New York Life agents for help in planning for the years to come—and to all our friends everywhere—we extend our warmest thanks as well as our sincerest wishes this Holiday Season.

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Farm Outlook

Latest information on conditions, production, markets, and income prospects

Defense spending, then what?

The nation's economy isn't likely to slow until defense production drops off. Many economists now time this for the end of 1953.

Here's the question—what will keep the wheels of an expanded production plant spinning when defense output declines? Already there is talk of public works to keep buying power high—of highways, turnpikes, dams, and power projects. This may mean better farm-to-market roads. This is talk so far—no blueprints yet.

Meanwhile, economists think inflation has about run its course. Outlook is for not much change in prices in the near future. Later phase may bring some slippage of prices you pay and prices you receive.

Pressure for more feed

Government pressure will be on this winter for another year of *record-high farm output*—especially of feed grains.

P.M.A. says a *desirable* carryover of corn is 1 billion bushels. To achieve this, next year's crop would have to be 3.7 billion bushels or some 45 million more than this year's pickings.

Actually, P.M.A. expects that corn acreage won't be much larger next year. With average yields, this would produce about 3.2 billion bushels.

Grassland goal added

This year, for the first time, the U.S.D.A. has added grassland to its goals program. View is that there is much idle land which could be put to grass and there is much worn-out pasture that needs to be improved.

Objective is to "relieve" the pressure on feed grains and other high-labor crops.

Limited manpower

The director of defense mobilization reported in October there will be limited manpower to attain next year's high production goals. That means you will need to make *even greater use* of the *most advanced* farming practices if production is to be increased.

Local selective service boards now have some leeway on deferment of essential farm workers. The Federal Employment Service also is charged with recruiting suitable hands to replace workers who leave essential farm production to go into the military service or shift to industry.

Inform these agencies early concerning your requirements.

Less wheat wanted

Principal exception to next year's high goals is wheat. Less wheat is wanted since export demand is down because of good crops in importing countries. World crop this year is a record 4 billion bushels.

Wheat prices have been helped here at home by big quantity going under support, and by unfavorable weather for fall seeding of new crop.

Cattle-price prospect

Midfall prices were $5 a hundred pounds lower than those of a year earlier. Cheaper hides and larger market supplies of cattle were chief reasons for the lower prices. The large marketings this fall are forerunners of the still larger supplies that will be sent to market in 1953 and later.

Seasonal price declines next year are considered most likely for fed cattle in late winter and spring, and for grass cattle in late summer and fall. Beef production in 1953, now forecast at 10.5 billion pounds, will be about 10 percent more than in 1952, and *biggest since the end of World War II.*

The prospective situation for the next two years calls for more careful attention to getting cheap gains. Carefully plan all purchases, feeding, and sales to fit the farm feed supply and normal seasonal market-price swings.

Spring pigs

Spring pig crops have declined in most years when the September-December hog-corn price ratio is as low as it is now. Special offsetting factor this year is a near-record corn crop. Both considerations point to a spring crop about the same next year as the 56.6 million saved in 1952.

Heavy market receipts seem likely to continue through December and January. This early winter supply will include large numbers of delayed spring and early-summer pigs.

Milk demand high

Consumption of fluid milk continues above that a year earlier, even though retail prices are at record-high levels in many cities. With milk output down—production was only 114 billion pounds this year—amount left for manufacturing continues below last year's.

U.S.D.A. economists see a *strong* demand for milk products in '53 and the possibility of a slight increase in milk production. Although prices received for milk and butterfat may be slightly higher next year, production costs will be at least as high as in 1952.

A strong point in the forecast was that dairying may improve in 1953, relative to other farm enterprises. Even so, returns will be *less favorable* than from alternative farm enterprises.

Dairy-products trend

Consumers are using less fat and more solids not-fat in milk. In 1952, fat consumption was estimated at 28 pounds compared to 30-33 pounds annually prior to 1945. In the last 20 years consumers have increased use of solids not-fat by about 20 percent.

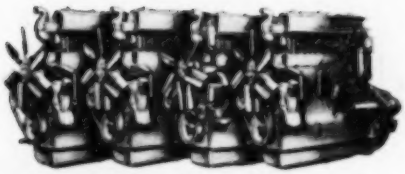
This change has made possible widespread consumption of dairy products even though the per capita consumption has been declining. Part of the difference has been offset by increased use of vegetable fats.

Sheep and lambs

Marketings for this year appear to be slightly larger than for the same time in 1951. This means that the numbers on farms are being held to a very low level.

Egg production down

Fewer eggs will be laid this winter than last, because relatively few replacement pullets were raised from the late-season hatch last spring. Prices next spring also will be *above* the low levels of this year. END



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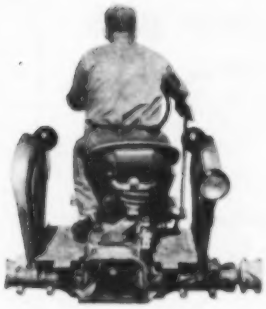

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WITH LIVE POWER-TAKE-OFF MASSEY-HARRIS 3-4 PLOW 44

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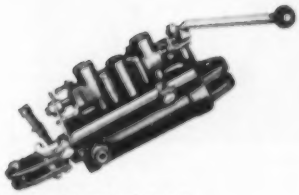
A separate clutch in the differential controls the 44's new power-take-off . . . maintains constant speed whenever the engine is running independent of the clutch operation. It eliminates the shifting delay that causes overloading and down time. It helps you get your crops in faster because you move right along, making every trip around the field more productive.

See the 44 with Live Power-Take-Off at your Massey-Harris Dealer's. Ask for a demonstration on your farm . . . drive it yourself and see why the 44 gives you more of everything that makes farming easier and more profitable. For complete tractor booklet write: The Massey-Harris Company, Dept. M-110, Quality Ave., Racine, Wisconsin.



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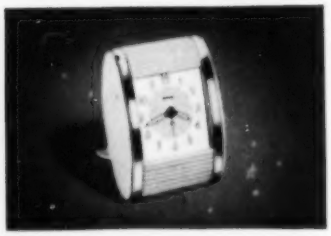

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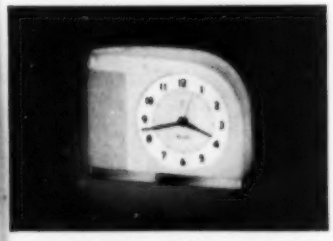

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MELODY Electric Wall Clock. Fits any room, any color scheme. Mounts flush on wall; surplus cord concealed. Wide color choice. $6.95.

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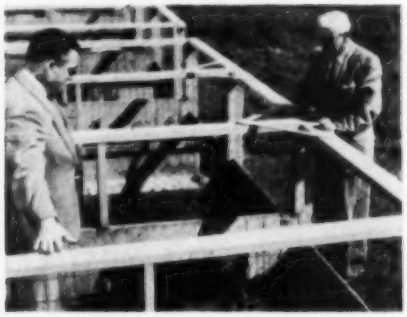

Research in hog production by Damon Catron (left), at Iowa State College, interests me deeply these days

You can find no better gift for Christmas than the new Authorized Version of the Bible. For Protestants it is the King James Version written 341 years ago and now rewritten in language we use and understand best today. (See "The Christmas Story," page 33.) For Catholics the new version is based on a translation done almost entirely by St. Jerome in 383 A.D. Bible scholars report cordial cooperation in working out the difficult parts for the two Bibles which in style and effect are about alike.

Your minister or your priest has already told you about this improved means of enjoying and understanding God's word. I need not do more than urge you at least to have a copy of the Bible according to your own faith and to let your friends see it. What a splendid and fitting way by which to wish anyone a merry Christmas!

The fat dilemma

Had the Cornbelt failed with soybeans 30 years ago, our present livestock population could not have been reached, for lack of protein feed. And had soybean culture proved a failure, the present oversupply of fats, with its disastrous effects on lard, tallow, and butterfat, would not be serious if heavy importations had been excluded. The answer to the dilemma may be a widespread use of synthetic nitrogen for cattle feed, lardless hogs, and skim-milk cows.

Already there is extensive preparation being made by producers of nitrogen to supply cattle feed as well as more fertilizer. Fortunately, the ruminants, with their multiple stomachs, can convert synthetic nitrogen into a satisfactory substitute for vegetable proteins. Perhaps, eventually, we may give up the growing of legumes if cheaper sources of nitrogen for feeding and soil improvement can replace them. With the demand for nitrogen reduced by synthetics and with oil prices chronically depressed, the acreage of soybeans would sharply decline. Future price relationships cannot be ignored.

To be edible, a hog must carry some fat. And so, at best, a less amount of lard can be a desirable but limited objective. Since some authorities believe 65 percent of the surplus lard is a breeding problem and 35 percent a feeding problem, we must be patient. Both are harder to solve than they might seem. The breed associations have accomplished little so far. Present methods of buying hogs have not helped. Consumer reaction comes only in a negative way. Folks refuse to buy pork because of its heavy intermuscular fat deposits. Best hog-feeding research is done in the Cornbelt where the hog is raised to provide a market for huge corn crops. Why not get him fat? To that question one can reply, "For the individual, yes; for the industry, it's suicide."

If the growing population is to have a high percentage of meat in its diet, hogs must furnish much of it. And the Cornbelt can't produce enough of the right kind. Hog raising is sure to become more attractive for the grassland farmer on the fringe of the corn country and in the Old South. For this area more feeding research is needed. How much crude fiber can a market hog eat? What will be the best type of hog to finish on a limited-corn ration? Will the consumer accept meat finished differently than at present, provided he can detect a difference? Will production costs of hog raisers be increased or reduced?

Like the hog, the steer must carry some fat to be edible. Those who eat the high-priced meat must, therefore, pay for wasted fat required in high-quality beef. For dairy herds specializing in high-test milk, the prospects are for a small specialized market in whole milk. Big changes in livestock production are certain in the next 10 years.

Kirk Fox

One of these is a <u>good</u> grasshopper

YOU'RE well acquainted with the fellow on the left. Such a grasshopper has never done you any good.

We call the mechanical device on the right a "grasshopper," too, because it looks a bit like one. But this little fellow does you a lot of good.

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"Colonial Copper" roaster-ovens ➡ of heavy-gauge copper have removable steel cooking wells, automatic temperature controls. Prices: 6-quart size (oval), $39.95; 2¾-quart (round), $29.95.—*Nesco, Incorporated, 201 N. Michigan Ave., Chicago 1, Illinois.*

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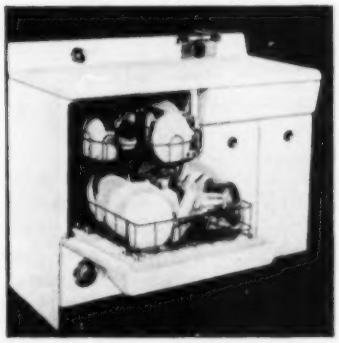
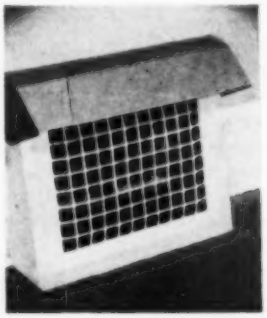
Register hood, adjustable, steel with bronze hammertone finish. Asbestos strip prevents leakage between the heater and wall. Sizes: up to 20", $3; up to 26", $3.25; up to 32", $3.50. Check or C.O.D. —*Wilhelmsen Hoods, 601 S. Vermont Ave., Los Angeles 5, California.*





New "Roto-Tray" automatic dishwasher has a new cleansing principle—a circular top rack that revolves with the motion of the water. Said by manufacturer to assure more-thorough washing of every item. The combination sink model shown costs about $439.95. Other styles, freestanding for installation in 24-inch space under kitchen counter, sell for $319.95, $339.95.—*American Kitchens Division, Avco Manufacturing Corporation, Connersville, Indiana.*

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6 cups sifted all-purpose flour
¼ teaspoon salt
½ teaspoon baking soda
1½ cups butter or margarine
1 cup KARO Syrup, Red or Blue Label
½ cup sugar, white or brown
1 cup chopped nuts

Mix and sift together first three ingredients. Beat butter until soft and creamy. Add Karo Syrup and sugar and beat until thoroughly blended. Add nut meats. Add sifted dry ingredients, all at once, and mix thoroughly with hands until stiff dough is formed. Shape into 3 rolls about 2 inches in diameter. Wrap in wax paper and chill in refrigerator 3 to 4 hours or until firm enough to slice. With a very sharp knife, cut in thin slices. Place on ungreased cooky sheet. Bake in hot oven (400° F.) 8 to 10 minutes. Makes 9 dozen.

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Chocolate Cookies: Add 3 squares melted chocolate or ⅔ cup cocoa before flour.

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Power Packed Beauty

Here is a new kind of car, designed to meet the needs of active, on-the-go Americans more completely, more thoroughly, than ever before!

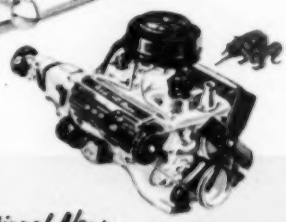
It's powered for action, with a thrilling reserve of acceleration that lets you drive with greater confidence and safety. *It's styled for action*, with lower, livelier, lovelier lines and spacious Travel-Lounge interiors. *It's engineered for action*, with a new road-hugging ride, new steering ease, new Gyro-Torque Drive for nimble change of pace.

You'll want to see and drive America's Thrilling Action Car . . . The new '53 Dodge.

Specifications and Equipment subject to change without notice

On Display Now

Visit Your Dodge Dealer and Thrill to a "Road-Test" Ride



Sensational New

140 Horsepower RED RAM V-8 ENGINE!

Packs more power punch per cubic inch displacement . . . delivers a full 140-h.p. on "regular" gasoline. It is the only engine design to bring you the triple power advantages of hemispherical combustion chamber . . . short stroke design . . . high-lift lateral valves. More fuel energy goes into *power*, less is wasted on heat and friction. Most efficient engine design in any American car!

Farming for profit in 1953

Doctor Boger consulted leading agricultural economists across the country to get this story. It is presented to help you operate your farm more profitably next year

By L. L. Boger
Michigan State College

General farm outlook. Demand will remain fairly stable. Farm prices will be determined largely by supply—what you produce *plus* stocks added by reduced exports. Increase of 1 or 2 percent in this total *could keep farm prices from rising. Prices for items you buy will keep climbing.* Farm prices could *fall below parity* during the year. This doesn't mean farming will be unprofitable—it means you will need to *watch costs more than at any time since 1949.* Your big problem will be to operate your farm with higher expenses, yet carry on without substantial inflationary price rises. Fertilizer is still *one of the best buys* for most farmers.

Cattle. Slaughter-cattle prices are expected to average *lower in 1953 than in the past two years.* The United States will have *another record* cattle population on January 1, 1953—about 92 million head. *There will be more beef available per person next year.*

With O.P.S. in effect until next spring, the plainer kinds of feeder cattle look like best bets for feeding, especially if you *get them marketed before the middle of 1953*—and if you have ample roughage. If you prefer calves, grow them and graze them to hold costs down.

Hogs. *Hog prices through this winter will average about $2 higher than last.* A spring price peak will be reached in February or March. The summer peak will come in August or September. However, *smaller pork supplies will make for less seasonal price variation than usual. Breed more sows or gilts. Save an extra pig per litter next spring.*

Sheep and lambs. *Your feeder lambs should show profits this year.* But profits will come from your feeding operation, *not from price rises for wool.* Wool prices are expected to remain about the same during the next year. Increased prospective slaughter of sheep and lambs *will keep sheep prices from rising much beyond the 1952 levels. Feed lambs for efficient gains. Maintain stock sheep numbers.*

Dairy. Demand for fluid milk and ice cream will be *strong* in 1953. More milk will be used this way and less for butter. Evaporated- and condensed-milk markets likewise will be stronger in 1953. *Net returns for the efficient dairyman should be higher* in spite of higher probable costs.

Suggestions for next year—*build up your herd, and substitute more good legume roughages for expensive proteins and part of the grain.*

Poultry. *Buy early-hatched chicks. Produce more eggs.* The number of prospective layers in the United States on January 1, 1953, will be about 7 percent *below* that of a year earlier. So laying flocks should be *more profitable* in the following months. Egg prices will average *5 to 10 cents a dozen above those of a year earlier,* and feed costs will be only slightly higher. *Early-hatched chicks will cash in* on high egg prices before the December, 1953, price decline.

Corn. *Plan to increase acreage. Shoot for high yields* because corn will continue to be among the highest-value feed crops you can grow. Though corn prices are now below support levels in most sections, *much of this gap will close as the season progresses.* Corn prices should range from $1.60 to $1.75, with the 1953 summer price depending on harvest prospects.

Wheat. Wheat prices during the current marketing year are expected to average *at or below* national support level of $2.17 per bushel. Wheat prices for 1953 again will be supported at 90 percent of parity—*probably somewhere near $2.20 per bushel.* With an anticipated carryover in July, 1953, about double that of mid-1952, *storage space will be at a premium. Arrange now for storage facilities for next summer's crop.*

Soybeans. Soybean prices probably will stay *above* support levels and *may even push against ceilings before the season ends.* Strong demand for meal will be the main force bolstering prices. Uncertain markets don't offset their value as a *cash crop.*

Feed. Grain supplies are adequate—thanks to the near-record, high-quality 1952 corn crop. But there will be less feed per animal than last year. Prices will about equal government loan rates through the feeding season. *Buy corn early. Make good use of available roughages.*

Protein feed supply is reduced from last feeding season's, but still *above average. Buy protein as needed.*

By the end of this feeding period, October 1, 1953, *total feed reserves will be lowest since 1947.* END

"Great...but you should see the new rooms at the SHERMAN in Chicago"

1,500 NEW ROOMS...
smartly restyled...
brilliantly designed...
1,500 reasons why
you should think
of the SHERMAN when
you think of Chicago.
Most convenient location.
A drive-in garage!
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CHICAGO'S WORLD FAMOUS RESTAURANTS
COLLEGE INN
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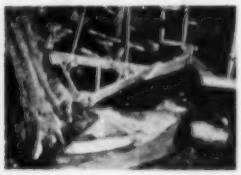
What's new in farming.

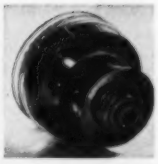
Tips you can use today



Tree shears. It is said that one man can cut 24 to 45 trees per hour with this 6-inch machine. Three models, 4-, 6-, and 10-inch machines, are available. Trees are cut off flush and fall to the right and rear of the tractor.—*Specialized Machinery, Inc., 1011 W. 34th St., Austin 5, Texas.*

A power-failure alarm. Requiring no batteries or extra wiring, this alarm rings a bell and shows a yellow signal when electric power is discontinued. The electric cord is simply plugged into any 110-115-volt, AC outlet.—*Afco-Lite Corporation, 1234 N. Paulina St., Chicago 22, Illinois.*

Battery cap. Said to preserve water in batteries, prevent corrosion, and warn of overcharge, this cap contains a catalyst to convert escaping hydrogen and oxygen gases back into water.—*Industrial Research, Inc., 4016 NW 29th St., Miami 29, Florida.*



Combine dryer. This gas-fired dryer may be mounted on any combine for harvesting small grain, soybeans, rice, or grass seed. Additional hours of operation are made available.—*Bishop Engineering Company, P. O. Box 5021, Dallas, Texas.*

STANDARD

FARM NEWS-GRAPHIC

AGENTS PROVIDE HELPFUL TIPS

"Sounds like your engine isn't getting enough fuel," says Standard Oil agent Lloyd Butler to Frank Lewis of Mason City, Iowa. Here he helps drain the carburetor sediment trap and remove the screen for cleaning. Friendly service tips are something that Midwest farmers can depend on from Standard Oil agents. Another thing farmers can depend on is Standard's uniform product quality. Mr. Lewis says, "I have used Red Crown gasoline for 14 years *with no trouble*." He knows that the top performance of Red Crown saves a lot of time and trouble on his farm. You'll like the service you will get from your friendly Standard Oil man. Call him today!

"This is the most expensive piece of scrap metal on any farm," says Max Horwatich (left) of Pewaukee, Wisconsin, as he shows worn piston to his son, Emil, and Standard Oil agent Al Hanson. Here's an example of what can happen if you use any but highest quality fuels and lubricants. Mr. Horwatich switched to Standard products five years ago. Now he says, "I have used nothing but Permalube Motor Oil for five years, and have had no bills to pay on my tractor other than normal operating expenses."

STANDARD OIL CO. (INDIANA)

News and Notes FOR DECEMBER

The first tractors were powered by steam engines, and were in use as early as 1876. In 1894 a one-cylinder gasoline engine was developed. It had no carburetor – no spark plugs. You had to start it with a blow torch! Today's tractors start a lot easier, run more efficiently because of improved design and the development of modern fuels and lubricants. One of the most famous of modern fuels is Red Crown Gasoline.

• • •

Here's one for you! When tractors were first produced in quantity, farmers could not get a loan to buy one. It was feared that this sort of machine would "*make farmers lazy.*" But despite this view, power farming has grown to one of the top spots in the nation's productive strength.

• • •

How much oil do you use?

The average Midwest power farmer, depending on the job to be done, uses from 36 to 72 gallons per year. You might figure out where you fall within that range of consumption and then figure

how you can afford to use anything less than the farmer's quality favorite in your tractor – Permalube Motor Oil.

• • •

Did you know that the wear and tear on your tractor engine in 400 hours of operation is equivalent to the wear and tear of five trips across the U. S. in your truck; or more than a year's driving in your car? Without good oil you can get in trouble. Get Permalube.

Your Standard Oil Man

Give him mild and tasty

Prince Albert

America's largest-selling smoking tobacco

Give him a big one-pound tin of Prince Albert – choice, crimp cut tobacco! Prince Albert's gaily decorated gift package needs no wrapping – you just write your message on the built-in card! Give P. A. to your friends who roll their own cigarettes, too!

R. J. Reynolds Tobacco Co., Winston-Salem, N. C.

The National Joy Smoke!

Warm chickens *stay healthy*

Keeping chickens in warm surroundings relieves them of common but destructive coccidiosis, according to recent studies at the Wisconsin Experiment Station.

When chickens, turkeys, and pheasants are stricken with the tiny, one-celled parasites, they cannot produce enough energy to keep warm, says C. A. Herrick, university parasitologist in charge of the experiments. "If infected birds are subjected to cold temperatures, they haven't enough energy to shiver or ruffle their feathers, which is how they keep warm," Herrick points out. "It's not uncommon to see a severely infected chicken, left out in a cold rain, so low on energy that it can't respond with so much as a tremble."

Key is body temperature. Herrick found that by placing infected birds in warm quarters—70 to 85 degrees for grown birds and higher temperatures for young chicks—the body temperature is brought up to normal again and the birds appear to be healthy in most respects.

"We took two groups of healthy hens and a group of infected hens from the hot sun and placed them in near-freezing temperatures," says Herrick. "Infected chickens showed an average drop of 7 degrees in body temperature while healthy ones were able to maintain close to normal temperature."

Revived inactive birds. Similar results were produced in another test. Infected pullets about 3 months old placed in an out-of-doors temperature of 32 degrees showed a 20-degree drop in half an hour, and were so inactive they appeared to be dead. When doused in warm water and wrapped in a towel, they revived. In a day, they were running about, perfectly normal.

No sure-fire way of getting rid of coccidiosis parasites has been found by science after the disease symptoms start. Sulfa, arsenicals, and other drugs have been used successfully in cases where the birds received drugs regularly before contacting the disease. Once infection sets in, drugs are of little help.

Seek answer to body-heat loss. Experts now are seeking to learn why the parasite makes birds unable to maintain normal temperature. One theory is that the parasite releases an inhibitor, or causes the body to release an inhibitor, which blocks the use of nutrients by the bird. Thus, the transfer of feed into energy for warmth and physical activity is cut down.

Until scientists learn more about the interaction between the parasites and the birds, they can recommend only that farms keep the infected birds warm enough to keep them from huddling.—*C. J. P., Wisconsin.*

COUNT 'EM... 4 ways you save

with this NEW

OLIVER SPREADER

1. *You save MONEY.* The Oliver "17" spreads manure wide and thin—the way it should be for best results. The same amount goes further—it's thoroughly shredded, uniformly spread.

2. *You save WORK,* with the greatest labor-saver ever put on a spreader—*the automatic, self-locking stand.* Hitch or unhitch without lifting or cranking—no effort at all!

3. *LOADING TIME* is yet another thing you save. The Oliver "17" is built low to the ground, an easy reach for the loader. You'll note there is no top bracing to get in the way.

4. *And save on REPAIRS.* Oliver's *inverted arch construction* keeps trouble away—no matter how big the loads, how rough the travel. Buy a "17" and *save* . . . see your Oliver Dealer.

See your OLIVER DEALER and SAVE!

THE OLIVER CORPORATION FS-12
400 West Madison Street
Chicago 6, Illinois

Please send me the illustrated booklet on the new Oliver "17" Spreader.

Name.....

City.....State.....

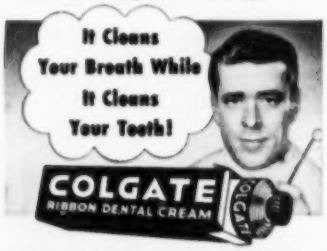
RFD.....County.....

Brushing Teeth Right After Eating with
COLGATE DENTAL CREAM
STOPS BAD BREATH AND STOPS DECAY!

The Colgate way of brushing teeth right after eating is the best home method known to help stop tooth decay! And Colgate's instantly stops bad breath in 7 out of 10 cases that originate in the mouth!

Brushing teeth with Colgate Dental Cream right after eating makes your mouth feel cleaner *longer*—gives you a clean, fresh mouth *all day long!* Scientific tests have *proved* in 7 out of 10 cases, Colgate Dental Cream *instantly* stops bad breath that originates in the mouth. And no other toothpaste cleans teeth more effectively, yet so safely!

Colgate's has proved conclusively that brushing teeth right after eating stops tooth decay *best!* Brushing teeth right after eating with Colgate Dental Cream stopped *more* decay for *more* people than ever before reported in dentifrice history! The Colgate way is the most thoroughly proved and accepted home method of oral hygiene known today!



PURE, WHITE, SAFE COLGATE'S WILL NOT STAIN OR DISCOLOR!

The farmer's Washington

By Richard Wilson

- **Start discussing export price of wheat in January**
- **Farmers face pressure from Iron Curtain countries**
- **Commodity Credit Corporation stocks hit low point**

Bargain for wheat. Representatives of some 30 nations will meet in Washington in January to negotiate for renewing the International Wheat Agreement.

The agreement, made in 1949, expires next July. On one side of the bargaining table will be representatives of the four top wheat-producing countries of the world—the United States, Canada, Australia, and Argentina. On the other side will be countries that must import wheat.

Long-run goal of exporting nations is a *guaranteed* market for a half billion bushels of wheat in case of a big surplus in the next three years. They will try to up the price from the present maximum of $1.80 per bushel.

It's now costing the United States government about 60 cents for every bushel delivered under the agreement. That's the difference between the agreement price and the United States cash market. Canada is in a similar situation.

On the other hand, both Canada and the United States have big wheat crops this year. Furthermore, export demand for United States and Canadian wheat is expected to be *down* next year.

Importing nations can be expected to hold out for continuing the $1.80 price. They'll emphasize United States and Canadian surpluses.

Crop loans down. January reports of the Commodity Credit Corporation probably will show the lowest investment in years in farm commodities owned and under loan.

The corporation has authority to borrow $6 billion to support prices. But it may have to use *little more than a third of it under present conditions.*

The heavy demand for foodstuffs and rising prices have dragged C.C.C. inventories of government-owned commodities down to around $1 billion. In 1950, this figure was up to $2.3 billion.

Officials of the C.C.C. are cautious about making flat predictions, but it looks like they'll have a *short* business year.

New Communist competition. Along with the expected decline in foreign demand for wheat and other foodstuffs, some agricultural observers see another problem facing the American farmer.

They are convinced that Russia and other Iron Curtain countries will make a new drive to crash into western European markets within the next year. *And this time they may have more success.* Here's why:

Industrial production in western Europe has just about reached the point where domestic needs are being supplied. Within the next year those countries will be looking hard for markets for their industrial surpluses.

When these countries face the choice of cutting production and employment or finding a market for their goods, the observers contend that *even the fear of communism may not hold up the trade barriers.*

Seven-year tax rise. The Department of Agriculture has published its annual survey of farm land-tax trends over the nation.

The story hasn't changed much during the past seven years. Each year has shown a rise in amount of taxes levied per acre.

The end result is that *since the beginning of World War II, taxes per acre have tripled over most of the country.*

But while levies have climbed steadily, they *haven't kept up with the rise in valuations.* On that basis they are *lower* proportionately than they were in 1945 in most sections of the country.

Point Four pays off. Efforts of the United States government to help other nations increase their domestic food production are showing *real results.*

More than 3,500 persons from countries in Europe, Asia, and South America have come to this country during the past year to study our agricultural production and marketing methods.

One thing that leads officials to believe the program is a real success is that more than half of these visitors now come at their own expense or are financed by their home governments.

Three years ago, when the program got under way, the United States government paid most of the bill with Point Four and Mutual Security funds.

Two-way street. All benefits from this program are not flowing in one direction. For instance, grape growers in the state of Washington learned a new and simple method of budding from an Italian who came here to study their methods. In another case a Dutch horticulturist showed his American host a more economical method of installing heating pipes in greenhouses. END

How to plan a farm for profit . . . and comfort

Here's a model of Dad's new steel building layout – and it spells "winter comfort." No more bending over into the teeth of biting, driving snowstorms; no more working for hours in clothing wet from cold wintry rains.

The reason is that Dad's new steel buildings are close together, with covered area-ways leading from livestock barns to feed barns. Even though he spends about 60% of his winter working hours in and around the barnyard, *most of the time he is under cover.*

Highly fire resistant. Strong, weathertight steel buildings make this layout safe and practical. They are highly resistant to fire and lightning. If fire breaks out in one steel building, it will not spread to another as long as doors and windows are closed.

Regular farm labor can put up prefabricated steel buildings with ordinary tools. If your needs change, these buildings can be relocated or enlarged at any time. Additional steel panels can be bolted on the existing structure.

Many manufacturers use Armco ZINCGRIP in the fabrication of steel buildings. This steel has a special zinc coating that doesn't flake or peel off when the panels are formed. If the buildings are to be painted, Armco ZINCGRIP PAINTGRIP is used because it is Bonderized at the mill to take and hold paint longer.

Write us at the address below for the names of manufacturers of steel farm buildings.

ARMCO STEEL CORPORATION

MIDDLETOWN, OHIO, WITH PLANTS AND SALES OFFICES FROM COAST TO COAST
THE ARMCO INTERNATIONAL CORPORATION, WORLD-WIDE

ARMCO

Gets prize-winning results with handy Dry Yeast

Dayton Cook is Top Winner at Fair

Mrs. Leslie Davidson shows some of her prize ribbons to ten-year-old Helen Rohr. Mrs. Davidson was just ten herself when she won her first cooking awards—and she's been at it ever since! Just last year she won 4 first prizes at the Montgomery County Fair.

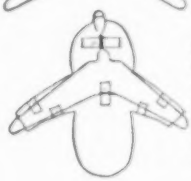
As an expert cook, Mrs. Davidson has lots of praise for Fleischmann's Active Dry Yeast. "It's so dependable," she says. "So convenient, too—stays fresh for months!"

Holiday meals call for delicious yeast-raised treats! When you bake at home, use yeast . . . and use the more convenient *dry* yeast. Fleischmann's Active Dry Yeast keeps for months on your pantry shelf . . . and it's so fast rising, so easy to use. For the finest yeast ever, try Fleischmann's Active Dry Yeast.

Santa *holds your* wreath

Here's a new way to hang up your Christmas wreath. Let Santa hold it for you! You can make this Santa yourself. All you need are a 12x24-inch piece of red felt, oilcloth, or heavy art paper; 12x24-inch piece of white; 6-inch square of pink; a wire coat hanger; and a pair of small black buttons to make the eyes.

1. Select a coat hanger and press sides together to form a slight arc as shown at left



2. Cut out the entire pattern from a piece of cardboard; then attach this with gummed tape to the hanger form

3. Out of the red material, cut out strips for a hat, a mouth, arms, and a cover for back of frame

4. From white, cut beard in several sizes. Cut hat trim, hair, cuffs, the mustache, eyebrows

5. Cut hands out of white. Then cut face out of pink. You are now all ready to put the parts together to make a genial Santa

More on page 106

THE EXTRA-SMALL ZENITH "ROYAL"

...for moderate to rather severe hearing impairment. Fingertip tone and volume controls, exclusive heat and moisture-resistant microphone, handy Reserve Battery Switch, plus the new Phone Magnet for clearer telephone conversations because it cuts out all other sounds. Only $75.

THE EXTRA-POWERFUL ZENITH "SUPER-ROYAL"

...for severe hearing impairment. You get all the famous hear-better features of the Zenith "Royal" plus full, 45-volt power permitting good hearing reception where many other aids fail. No separate battery pack, no dangling battery cords. There is just one handsome, compact case. Only $75.

THE EXTRA-THRIFTY ZENITH "REGENT"

...for "borderline" to rather severe hearing impairment. Includes all the features of the Zenith "Royal" (except the Reserve Battery Switch) plus the Power Selector Switch for greater operating economy (as low as ⅓ cent per hour). You never pay for more power than you need. Only $75.

These three great

ZENITH HEARING AIDS

are worn by millionaires, teachers, jurists, engineers and thousands of others who can afford any type of hearing aid at any price. An ideal Christmas gift–only seventy-five dollars.

The above 1953 Zenith "Royal" and "Super-Royal" models are available with new, beautifully designed External Microphone at slight extra cost.

TEN-DAY MONEY-BACK GUARANTEE. SEE YOUR LOCAL ZENITH DEALER.

"Net Profits Are $238.63 Per Cow Above Feed Cost —with MoorMan's"

—says H. E. Connelly

Cows Have Made Consistent Increase in Production Every Year

"We made a profit of $238.63 on each cow during our last D.H.I.A. testing year," says H. E. Connelly, Butler County, Ia., "and we think a good deal of this is due to feeding MoorMan's Cow Mintrate.

"The profit is net—after feed costs were deducted. These costs even included pasture rent. As we averaged 17.36 cows on test, our net profits for the year were $4,142.62. The cows averaged 11,540 pounds of milk, and 445.5 pounds of butterfat.

"We've used MoorMan's four years to supply the vitamins, proteins and minerals our own feed lacks—and we give this good concentrate credit for keeping the cows in top, thrifty, milk-making condition. We have less breeding and calving trouble, and the cows have made a consistent increase in production every year since we started feeding it. Then, too, we like Cow Mintrate because it is economical and easy to use. We just sprinkle a pound on each cow's grain every day.

"Our grain ration consists of three-fifths corn and cob meal, and two-fifths oats. In a year's time we figure each cow consumes 5,310 lbs. roughage, 3,158 lbs. of grain, and 332 lbs. of Cow Mintrate. In addition, we charge a pasture rent of $10.98 against each cow's feed costs.

"Here's how we figure our profits:

Value of milk per cow (66 $3.46 cwt.)...	**$399.18**
Feed cost per cow.....	**160.55**
Profit above feed cost, per cow.	**$238.63**
Gross income from herd.	**$6,929.76**
Less feed costs per herd.	**2,787.14**
Total profit above feed costs.....	**$4,142.62**

Are your cows doing as well as the Connelly herd? If you have good cows—but they're not making profits like these—then switch to MoorMan's Cow Mintrate. You, too, can balance your own grain and forage with only the proteins, minerals and vitamins they lack. Let your MoorMan Man show you how, the next time he calls. If no MoorMan Man calls, write Moorman Mfg. Co., Dept. R5-12, Quincy, Ill., for full information.

MoorMan's
(Since 1885)

MAKERS OF PROTEIN AND MINERAL CONCENTRATES FARMERS NEED, BUT CANNOT RAISE OR PROCESS ON THE FARM

FOR GOOD RESULTS USE MoorMan's

Hormones

used on lambs

A 20-percent saving in feed, faster gains, and a boost in carcass quality have resulted from the use of two hormones. The two hormones, stilbestrol and progesterone, were used on spring lambs in feeding experiments at the Michigan Agricultural Experiment Station.

Both female hormones were implanted in the necks of one group of 10 lambs. Another pen of 10 lambs received no hormone pellets. The two groups were compared at the end of the 89-day feeding period.

The hormone-treated lambs gained 10 pounds more than the untreated animals, and they gained more efficiently. For each 100 pounds of gain, the treated lambs consumed 254 pounds of cracked corn and 502 pounds of alfalfa hay. The untreated lambs required 332 pounds of cracked corn and 623 pounds of hay for the same gain.

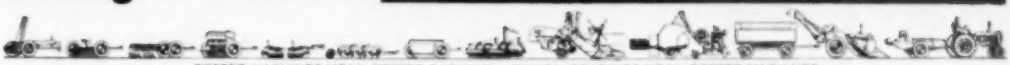
Michigan State College researchers also reported that the carcass quality of the treated lambs was higher than that of untreated animals. Another advantage of the hormone treatment cited by the experiment-station workers is that the treated lambs were easier to keep on feed. Unseasonal hot weather caused the untreated lambs to go off feed twice during the experiment.

The hormone implantation won't be a practical operation for the farmer for some time. As yet, it takes an expert to do the job. A large-scale experiment on lambs is being conducted at Michigan State to get further data on the benefits of several different hormones in lamb production. When this experimental work is completed, *Successful Farming* will report the results to you.

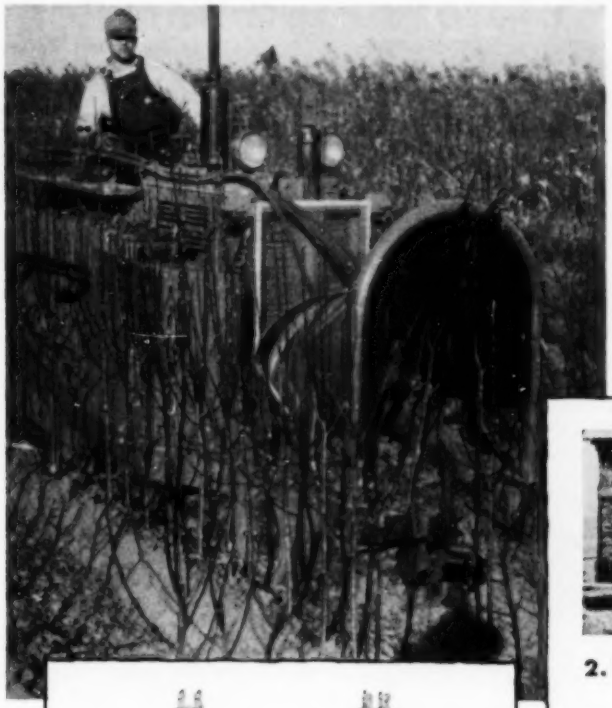
SUCCESSFUL FARMING

"Have you ever tried getting some homework done on a night when somebody finally proposed to your sister?"

Making the most of MECHANIZED FARMING



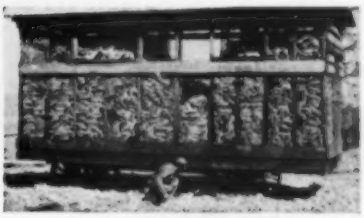
BETTER MACHINES MEAN BETTER FARMING . . . TIMKEN BEARINGS MEAN BETTER MACHINES



1. ROOT PRUNER DOES WORK OF 9 MEN AND 16 MULES

Nine men and 16 mules! That's what it used to take to loosen young trees on an Iowa nursery before this tractor-mounted root pruner was invented. A U-shaped knife on the front of the tractor digs around roots and 12" to 15" into the ground. It's one more example of how American farmers are creating new profits with mechanized farming.

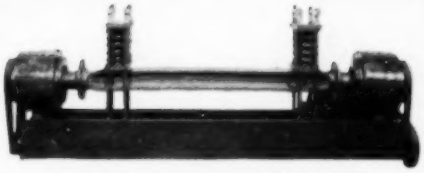
To help you make the most of mechanized farming, farm equipment manufacturers are mounting more and more moving parts on Timken® tapered roller bearings. This means machines spend more time farming, need less time for lubrication and maintenance. Timken bearings permit higher towing speeds, and save power.



2. PORTABLE CORN CRIB MAKES HOG FEEDING EASIER

James Schoell, Fairfield County, Ohio, put the frame and wheels of an old truck under this corn crib and made it completely portable. Now, when he wants to feed the hogs, he tows the crib to any field on the farm, opens one of the four sliding doors in the bottom and the job is done.

$10 FOR IDEAS: Do you have any ideas like this on making the most of mechanized farming? We'll pay $10 for each idea that we accept and publish. Send photo of implement and description to The Timken Company, Dept. SF-12, Canton 6, Ohio.



3. MAKING GOOD IMPLEMENTS BETTER

This wheel bearing testing machine is typical of the extensive testing facilities of the Timken Company. Our engineers are continually helping manufacturers develop better bearing applications and related parts for farm machinery. It means the implements you buy will serve you better, last longer.

4. HOW TO GET THE MOST FOR YOUR MONEY

One way to get the most for your money from a tractor or implement you buy is to be sure it's equipped with Timken tapered roller bearings. Timken bearings hold moving parts in positive alignment. Friction is practically eliminated, wear reduced. Always look for the "Timken Bearing Equipped" label. It means top quality. The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".

Tapered Roller
TIMKEN BEARING EQUIPPED

This symbol on a product means its bearings are the best. Look for it when you buy.

NOT JUST A BALL ◯ NOT JUST A ROLLER ▭ THE TIMKEN TAPERED ROLLER ▭ BEARING TAKES RADIAL AND THRUST LOADS OR ANY COMBINATION

3 BIG LIFE-SAVING & MONEY-SAVING HOW TO's

1. How to Stop Shorter on Ice or Snow
2. How to Start Quicker
3. How to Get More Than Double Tire Chain Mileage

ASK FOR WEED AMERICAN V BAR-REINFORCED TIRE CHAINS —BEST EVER MADE

ACCO *In Business for Your Safety*
AMERICAN CHAIN & CABLE COMPANY, INC.
Bridgeport, Connecticut

For little money—

Glamourize your gifts

By Ruth Ann Walker

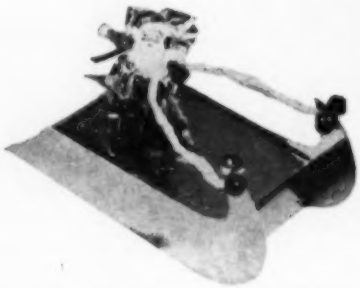
Half the fun of Christmas and the holiday season is the "getting ready." And what's more fun than wrapping a package that looks so good you'd like to receive it yourself! It costs so little to make each package an individual-looking one you'll be proud to give.

A sprig of holly or a spray of evergreen tucked into the bow will add a more festive touch. Or, several small Christmas-tree balls or miniature candy canes tied

[*Turn to page 99*

Write greetings on your package with paint or crayon. Glue on sharpened feather to resemble old-fashioned quill

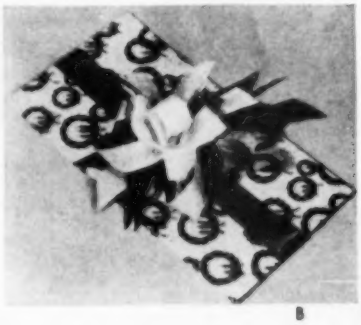
Photographs: Fletcher

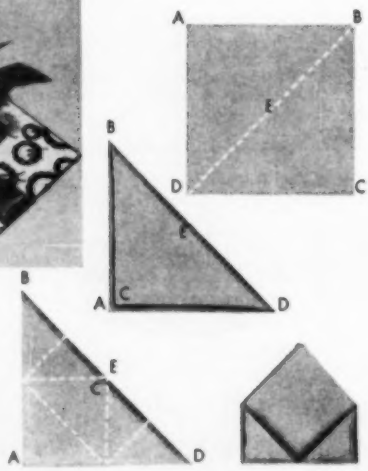


Let your package become a sleigh! Cut runners from cardboard, cover to match box, and glue on. Add a miniature Santa Claus to hold ribbon reins

To make candle on package, cut out shape on paper, insert white paper, and add flame cut out of red

Here's an idea for that package without a box—





When you don't have a box for a gift, try this idea. Cut wrapping paper in square. Follow directions in sketches at right. The result will be an envelope-type package for your gift. Insert piece of cardboard in envelope to make it sturdy. Add the gift and finishing touches

"Jim—why must Life Insurance policies be so long?"

Because they contain so many provisions stating your rights and benefits

Your life insurance policies *do* have a lot of words. But these words are necessary to spell out your privileges and benefits and to define the obligations of the companies.

The life insurance policy of today is far more flexible than the shorter policy of years ago. This has come about as the companies, competing to meet public needs and desires, have sought steadily to improve their policies.

In the early days, for example, one company would offer a new provision. Still others would add further advantages. And so life insurance policies "grew" to include, among other things, the grace period of paying premiums, the loan privilege, your guarantees if you have to stop paying premiums, and ways in which benefits may be paid in the form of income or over a period of time.

Many of the advantages you find in your policies are now required in substance by law in the various states.

If you and your family are to use the policies you own to best advantage, it is important that you understand them. Why not look them over carefully sometime? If you have any questions about their provisions, your agent or your company will be glad to answer them.

Institute of Life Insurance

Central Source of Information about Life Insurance
488 Madison Ave., New York 22, N. Y.

COMPARE and you'll GIVE

HAMILTON BEACH!

$37.50*

Compare it for VALUE!

Ask any owner of the Hamilton Beach Food Mixer. Forty years of experience and 15 million appliances say Hamilton Beach is *real value*. At $37.50, Hamilton Beach is your best dollars-and-cents buy. Compare! Meat-grinder, slicer-shredder, coffee-grinder, pea-huller and bean-slicer attachments available.

Compare it for EASE OF USE!

EASIEST *Portability!*

With beater unit that glides off stand for use at table, range, *anywhere!* No triggers, catches, latches. Compare!

EASIEST *Operation!*

With exclusive MIXGUIDE that puts 10 tested speeds under your thumb, magnified for flash reading. Hand that holds mixer sets speed. Frees your other hand to hold a pan, add ingredients. Full power at all speeds. Compare!

EASIEST *Bowl Control!*

Shifts ever turning bowl while beaters revolve—guarantees thorough mixing. Easiest of all food mixers to use regardless of price. COMPARE and you'll choose Hamilton Beach! *Hamilton Beach Co., Div. of Scovill Mfg. Co., Racine, Wis.*

NEW

HAMILTON BEACH

Mixette*

BEAT, MIX, MASH, WHIP, FOLD in any bowl or pan.

FULL-POWER MOTOR—even mixes heavy molasses-cookie batter.

$19.75*

IN GIFT BOX

Includes bracket and screws for wall mounting.

THUMB ADJUSTS SPEED—other hand holds pan or adds ingredients.

HANGS ON WALL or fits in drawer—bracket furnished.

BEATERS SNAP in for use—snap out for cleaning.

Made by the makers of top-value Hamilton Beach Vacuum Cleaners.

*Prices subject to change without notice.

All around

Here are tips to help you save some time, space, steps, work

● To make holiday popcorn balls different, I add chocolate bits, nuts, or crushed peppermint candy to the syrup just before pouring it over the popcorn.—*Mrs. H. S., Nebraska.*

● **For a novel and inexpensive door decoration at Christmas, I painted a discarded rubber boot bright red. Then I glued cotton batting around the top to imitate fur and stood Santa's boot on our front doorstep.—*Mrs. H. Y., Pennsylvania.***

● If your books have been handled a lot and their edges are soiled, you can make them look new again by applying a light coat of blue, green, or red ink with a mucilage brush. Hold the edges of the book firmly together while applying the ink.—*B. C., Nevada.*

● **I make fruitcake, candy, and cookies to give to my friends at Christmastime. When wrapping the package, I include e recipe for the particular gift, either itten on a recipe card or printed on the top of the package.—*Mrs. M. O., Iowa.***

Photographs: Stanley

● Here's how to make a compact container for recipe booklets. Remove the lid and cut one side from a strong, narrow box. Cover remaining sides and bottom of box with colorful plastic shelf paper. Store on kitchen shelf with your cook books.—*Mrs. S. S., Nebraska.*

● **When making a dress for my little girl, I cut a 4-inch square of the material, and embroider the month and year on it in a contrasting color. These squares are stored in a box until there are enough to make a quilt from them.—*Mrs. N. H., Virginia.***

● Your fireplace can be a bright spot all year round. Clean the brick facing by using a solution of 1 cup vinegar, 1 cup ammonia, 1 cup borax, and 1 cup water.

the house

Apply with a brush and rinse thoroughly. For extra sparkle, shellac the seams between the bricks.—*P. K., Iowa.*

● Here's how you can enjoy your Christmas cards again next year: Clip out the design with pinking shears. From paper of a different color, cut a piece the same shape, ⅛ inch larger, for backing. Cut a third piece the same shape, ⅛ inch larger than the backing. Fasten the three pieces together with a drop of paste in the center and tie them with yarn or the ribbon from your gifts. Next Christmas you will have an attractive array of tree decorations and gift tags.—*Mrs. E. K., Wisconsin.*

● We have a "stop and go" system for milk at our house. We place a green band on the oldest milk in the refrigerator, a red band on the newer quarts. The family never has to ask which milk to use first.—*Mrs. R. J., Minnesota.*

● If you are tired of picking up toys for Baby while he plays in his highchair, put two screw eyes in the front of his tray with a heavy cord between. From this cord suspend his toys on 18-inch lengths of narrow elastic. It is surprising how quickly he learns to pull up his "toy of the minute," and when he tires of it, it won't go on the floor.—*E. W., New York.*

● An old picture frame can be made attractive for a teen-ager's bedroom by covering it with cotton padding and scraps of material to match her draperies, bedspread, or dressing-table skirt. Give the frame a tufted appearance by spacing and driving upholstery tacks through thickness around sides. Secure material to back with thumbtacks.—*Mrs. W. K., Ohio.*

● I cut a cellulose sponge in quarters and use each quarter for a different color of shoe polish.—*Mrs. D. M., Iowa.*

Successful Farming will pay $5 for each helpful suggestion published. We cannot return unused suggestions.—Editors

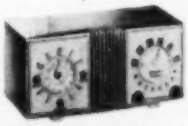
New Idea to Put Kitchen Chores to Music

Motorola

wonderful too for den, bathroom, rumpus room or porch . . . model 52 CW—citron, off-white, cherry, leaf green 39.95*

Motorola Radios out perform, out distance others anywhere

Model 52 R—From $17.95* walnut, ivory, maroon, grey, green or red.



Model 52 C—From $34.95* Walnut—ivory—green—appliance outlet with off-on switch—powerful radio.

Take your choice of any of the handsome Motorola radio or clock-radio models—greatest performers on the market today. They are made to eat up distance—to give you superb reception and that famous *Golden Voice* tone. Newest idea of all is the Pin-Up Clock radio designed to give you a clock you can see clear across the room and a radio that doesn't take up shelf space. Magic timer turns on your favorite radio program automatically. Patented plug adjusts cord length.

SEE THE NEW MOTOROLA RADIOS NOW!

*Prices slightly higher west or south—subject to change without notice

Motorola Golden Voice of Radio

world's largest exclusive electronics manufacturer

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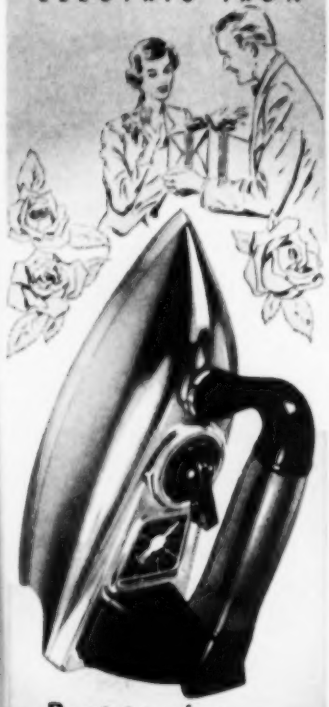
TO BE SURE . . .

American Beauty

ELECTRIC IRON



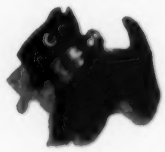
Best to give . . . Best to get!

TO HAVE an American Beauty is to be sure you have the finest ironing instrument that skill and experience have yet produced —anywhere.

TO BE SURE you have the correct ironing temperature for the fabric to be ironed, just glance at the unique, easy-to-read Thermoscope. Only American Beauty has visible temperature control with double-check dial at your very fingertips. And fast, too. You'll like the quick, even heat it provides. Ask . . . at better stores.

Since 1894
American Electrical Heater Co.
Detroit 2 • Michigan

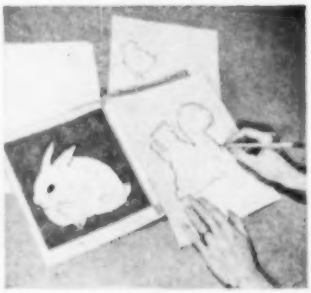
Tuck-in toys



Wrapped with gifts, stuffed into stockings, or on the tree, amusing felt toys will delight a youngster

Make your own patterns for these gay little gifts. They're easy as they can be and make a clever "extra" for youngsters' birthdays, too. Mothers will enjoy having them to tuck into purses to amuse restless little ones at programs or visiting.

And when it comes to trimmings, let your imagination go . . . a tiny brass bell, a gay ribbon bow, saucy button eyes, polka-dot patches. You'll have fun creating your own "originals."

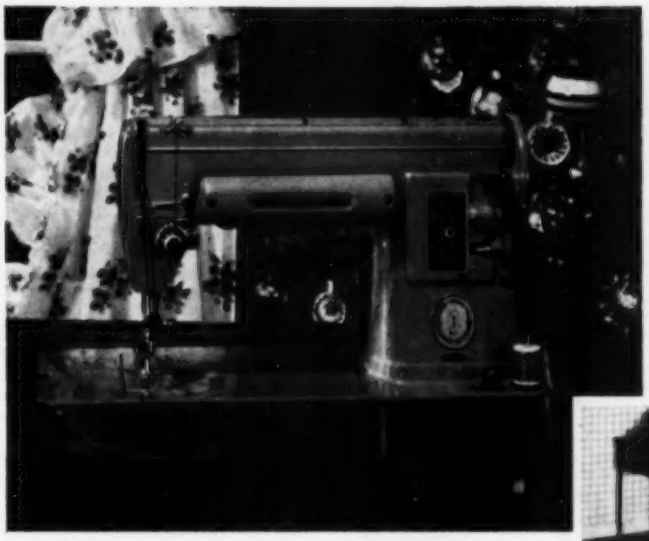


How to make a felt animal:

Trace the outline from a child's color book or story book. Cut twin pieces of colorful felt, allowing about ½ inch extra all around, when possible. Stitch pieces almost together on the outside; stuff the inside with cotton and finish the stitching

Want a wonderful new slant on sewing? *Hint for...*

The Amazing New Slant-needle SINGER



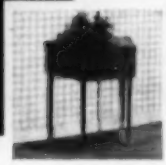
HERE's some of the most exciting sewing news in 100 Christmases!

The first home sewing machine with a needle that slants *toward* you instead of being straight up and down. Makes it easier to see where you're going; easier to "feed" all types of fabrics.

The first machine that's a cabinet *and* portable all in one. A machine that has both knee *and* foot control—many other new features!

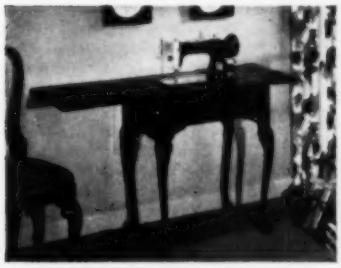
It's the exclusive, patented slant-needle SINGER* Sewing Machine! Designed for eye-ease—in soft beige or traditional black.

See it at your SINGER SEWING CENTER *now*. Get a wonderful new slant on what to hint for (or to give) this Christmas!

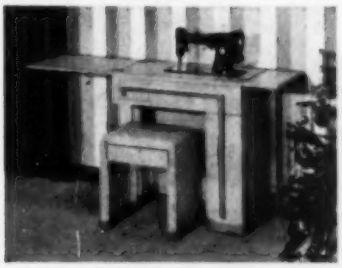


New Spinet Cabinet. Designed for slant-needle SINGER. Leaf opens at an angle—*toward you*. Machine is set at an angle, too. Lets you sit more comfortably, see better. (New SINGER available in Queen Anne, desk model, other styles, too.)

For the finest straight-needle and swing-needle (zigzag) machines . . . you couldn't ask for anything better than these famous SINGER leaders



Familiar "straight-needle" SINGER. Smoothest-stitching machine of its type. Dependable as only a SINGER can be. Available in Queen Anne Cabinet (above), FEATHERWEIGHT* Portable, *many* other styles—in a range of prices to suit any Santa.



The "swing-needle" SINGER. A zigzag machine, designed particularly for decorative as well as straight sewing. Does a variety of fancy stitches, makes buttonholes, sews on buttons—*without attachments*. A leader in its field!

For little gifts that get BIG thanks . . . *shop at your* SINGER SEWING CENTER! Bright sewing baskets—fitted or unfitted—in sea grass, chintz, or plastic. Darning and mending kits. Clever tape measures and pincushions. Really-good scissors sets. SINGER has gifts galore to please your friends, ease your shopping. *From 59¢ to £15.*

Don't be misled. SINGER sells and services its products only through SINGER SEWING CENTERS, identified by the Red "S" Trade Mark on the window, and listed in your phone directory only under SINGER SEWING MACHINE CO.

There are more than 1200 SINGER SEWING CENTERS coast to coast . . . and more than 4000 SINGER service cars always ready to bring SINGER service right to your door.

SINGER SEWING CENTERS

THERE'S ONE NEAR YOU TO SERVE YOU

*A Trade Mark of THE SINGER MANUFACTURING COMPANY. Copyright, U. S. A., 1952, by the SINGER MANUFACTURING COMPANY. All rights reserved for all countries. The new SINGER available in the United States only.

NEW! IMPROVED!

No breakfast skipping when you slip 'em beautiful bowls of new, improved Post Toasties! It's the *heap good* corn flakes—best tasting of all. Extra crisp, extra fresh—Post Toasties *won't mush up* in milk. Heap nourishing for young braves 'n gals, too—so get a big box tomorrow—the whole tribe'll love Post Toasties!

BEST THING THAT'S HAPPENED TO CORN SINCE THE INDIANS DISCOVERED IT!

Books

for your pleasure and profit

By Robert West Howard

Few, if any, farm tools look good in the living room, answer questions, or rarely need an overhauling. But good reference books have all these qualities. And good reference books are good farm and home tools. Here are a few new ones that will make valuable, lasting Christmas presents for all the family.

Men will appreciate **Insects: The Yearbook of Agriculture, 1952** (United States Government Printing Office, Washington, D. C., $2.50). This latest U.S.D.A. Yearbook contains 71 full-page color photographs of the most destructive field and livestock pests. Each insect is shown in grub and adult stage, with a close-up of the type of infestation it produces. There are concise descriptions of the insect and instructions for its control on the back of each color plate. The other 780 pages of the book are an encyclopedia on America's insect life and methods for controlling it. Again, Editor Alfred Stefferud has done a masterful job. Considering the price, **Insects** is far and away the best farm reference buy of the year.

If Pop's interested in distribution problems and the potentials of on-the-farm processing, he may want to own **Food Science,** edited by E. C. Bate-Smith and T. N. Morris (Cambridge University Press, 32 E. 57th St., New York 22, New York, $8). This is a symposium on the science and practice of food storage, preservation, and transportation, based on discussions and writings of 26 English authorities. I know of no book like it issued on this side of the Atlantic. It is basic.

Members of farmer co-ops should like **Built of Men** by the estimable "quarterback" of the Indiana Farm Bureau Cooperative Association, I. Harvey Hull (Harper & Bros., 49 E. 33rd St., New York 16, New York, $3). Mr. Hull analyzes the success-or-failure patterns of farmer co-ops in telling the economic history of his own organization.

If you're showing dairy cattle or planning to, the Christmas tree should have a copy of **Fitting and Showing Dairy Cattle** by Jack Spearing (Iowa State College Press, Press Bldg., Ames, Iowa, $1.50). Mr. Spearing won the Klussendorf and Fraser Trophies in 1948. He grew up with the famous Maytag show herd, Newton,

Iowa, then took charge of fitting and showing the Curtiss Candy Company's Guernseys. His 91-page book, with photographs and diagrams, has purple-ribbon values as a reference on the basic principles of ringmanship.

Any 4-H'er around the home will spend the rest of the Christmas holidays, and then some, poring through **The 4-H Handbook** by Dr. H. A. Willman, 4-H livestock and dairy specialist at Cornell University (Comstock Publishing Associates, Cornell University, Ithaca, New York, $4.50). First published this fall, the 238-page book covers the 4-H'er's farm front from project rules and qualifications of winners through an appendix of answers to 60 review-question lessons. It's a must book for any 4-H member.

With winter setting in and the urge to "make something" creeping up on the ladies of the house, here are three informative books for their Christmas fun:

How to Clean Everything by Alma C. Moore (Simon & Schuster, 1230 Sixth Ave., New York, New York, $3) is a neat 226-page addition to the kitchen shelf. Arranged alphabetically, it contains modern and complete instructions for cleaning any household item.

Early American Decorating Patterns by Peg Hall (M. Barrows & Co., 114 E. 32nd St., New York 16, New York, $5) is a guide to the stenciled flowers, shellwork, "clouds," and painted overlay that embellished so much of America's furniture between 1750 and 1865. The book has 145 pages of detailed instructions with full-page stencil units, and several color plates, for chairs, trays, chests, screens, bronze, and printwork. Use it to touch up—or create—Salem rockers, Hitchcocks, Pennsylvania German dower chests, dovecote trays, and all those other old sitting-room comfortables.

Creating Hooked Rugs by Vera B. Underhill and Arthur J. Burks (Coward-McCann, Inc., 210 Madison Ave., New York, New York, $6) is another winter's evening stunner for the ladies to study. Here, again, with work charts and color photographs, are detailed instructions for creating "velvet flowers," "elephant ears," "old New England," "cathedral window," and the rest of the hooked beauties that bring life and sparkle to a room.

A book for all the family, and one you'll be reading aloud (just as we did) is **Come an' Get It** by Ramon F. Adams (University of Oklahoma Press, Norman, Oklahoma, $3.75). This is a bang-up saga, by a Dallas businessman, of cowboy cooks in the heyday of the big-ranch chuck wagons. It's cover-to-cover a-chuckle with anecdotes of those "kings of the wreck pans" who invented sourdough biscuits, son-of-a-gun stew, and splatterdabs. I wish there were room here to reprint the yarn about the cowboy who finished off the condensed-milk jingle, or to give the recipes for "Pecos strawberries." This is as hearty a dish of the Old West as I've downed in years. END

Big News! "CUT" COOKIES OR "DROP" COOKIES —BOTH FROM THE SAME DELICIOUS BAKER BATTER!

Make them either way or *both* ways—and make lots because they're wonderful! Everybody'll want seconds . . . and *thirds!*

TWO-WAY CHOCOLATE COOKIES

1½ cups sifted flour
½ teaspoon soda
¼ teaspoon salt
2 squares Baker's Unsweetened Chocolate
½ cup butter
½ cup brown sugar, firmly packed
½ cup granulated sugar
1 teaspoon vanilla
1 egg, unbeaten
½ cup sour milk or buttermilk
¼ cup chopped nut meats

Sift flour, measure, add soda and salt and sift again. Melt chocolate and butter in saucepan over low heat. Add sugars and vanilla; mix well. Add egg and blend. Add milk and flour; stir until blended. Add nuts. Drop by spoonfuls on ungreased baking sheet and bake in moderate oven (350°F.) 12 to 14 minutes. Or spread mixture in two 8x8x2-inch square pans lined with paper and greased. Bake in moderate oven 18 minutes, or until browned. When cool, cut in squares. Makes 5 dozen cookies or 32 squares.

Product of General Foods

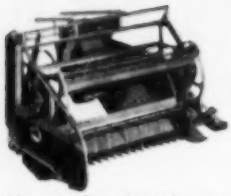
any boy can do a man's job

with the simple-to-operate

GEHL®

PRONOUNCE IT "GALE"

FORAGE HARVESTER



The GEHL Mower-Bar Attachment is making a hit everywhere! With a five-foot swath, it cuts standing crops from short Alfalfa to tall Sudan and Sorghum, chops and blows it into wagon . . . clearing the field in one operation, saving sweat, back-breaking labor and time. **Helps** you beat the man shortage and the weather.

QUICK CHANGE-OVER for 3-way Harvesting
From the Mower-Bar, you can change quickly to the Hay Pickup or Row-Crop Attachment. Your choice of engine power or power take-off from tractor.

. . . any boy who drives a tractor can operate a Gehl Forage Harvester. Many owners let their teen-agers run the outfit, and sometimes they do custom-work for neighbors. This simplicity of operation, known to all Gehl Chopper owners, indicates the smart, practical, experienced engineering in every part of the Gehl. Built by specialists in the manufacture of feed choppers for over half a century, the Gehl works better, lasts longer.

There's a big difference in Forage Harvesters. The Gehl chopping mechanism follows the basic principle so successfully used in Gehl Silo Fillers, famous for years. Clean, fast, uniform chopping that makes better feed . . . silage that packs well, keeps better, is one of the reasons for Gehl leadership in Forage Harvesters year after year.

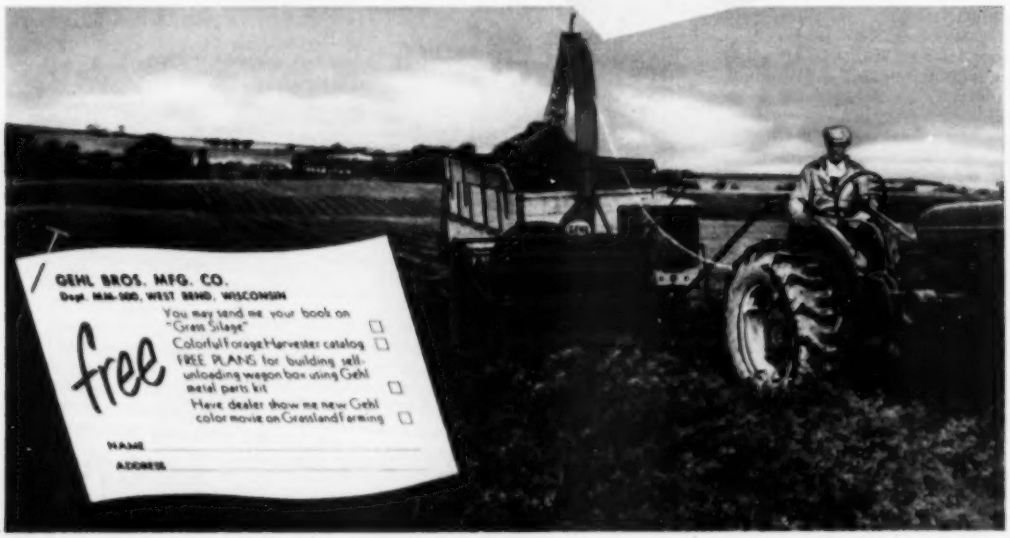
Find out why ***Gehl has sold more Forage Harvesters than any other independent manufacturer.*** Talk to Gehl owners . . . visit your dealer.

GEHL . . . a good name to go "buy"

Get the facts about "GRASSLAND" FARMING free!

Send for ***new free book:*** "Streamlined Methods of Harvesting Hay and Making Grass Silage." ***Tells how*** to store in stacks, trench silos, top-of-ground, or regular silos . . . ***who*** should go to grass farming . . . ***when*** to sow or plant . . . ***when*** to cut . . . ***how*** short to cut, and scores of other important questions that will show you how others are making ***more*** money with "grass silage."

MAIL THE COUPON TODAY!



This fall, after 14 years of patient work, the Revised Standard Version of the Holy Bible was published. Easier to read and understand than the King James translation, it is backed by the National Council of Churches, will be used by over 100 Christian denominations. For your inspiration on this Christmas we reprint from it the birth of Christ, as reported in the gospel by St. Luke

THE CHRISTMAS STORY

In those days a decree went out from Caesar Augustus that all the world should be enrolled. This was the first enrollment, when Quirinius was governor of Syria. And all went to be enrolled, each to his own city. And Joseph also went up from Galilee, from the city of Nazareth, to Judea, to the city of David, which is called Bethlehem, because he was of the house and lineage of David, to be enrolled with Mary, his betrothed, who was with child. And while they were there, the time came for her to be delivered. And she gave birth to her first-born son and wrapped him in swaddling cloths, and laid him in a manger, because there was no place for them in the inn.

And in that region there were shepherds out in the field, keeping watch over their flock by night. And an angel of the Lord appeared to them, and the glory of the Lord shone around them, and they were filled with fear. And the angel said to them, "Be not afraid; for behold, I bring you good news of a great joy which will come to all the people; for to you is born this day in the city of David a Savior, who is Christ the Lord. And this will be a sign for you: you will find a babe wrapped in swaddling cloths and lying in a manger." And suddenly there was with the angel a multitude of the heavenly host praising God and saying,

"Glory to God in the highest, and on earth peace among men with whom he is pleased!"

When the angels went away from them into heaven, the shepherds said to one another, "Let us go over to Bethlehem and see this thing that has happened, which the Lord has made known to us." And they went with haste, and found Mary and Joseph, and the babe lying in a manger. And when they saw it they made known the saying which had been told them concerning this child; and all who heard it wondered at what the shepherds told them. But Mary kept all these things, pondering them in her heart. And the shepherds returned, glorifying and praising God for all they had heard and seen, as it had been told them.—*St. Luke, Chapter II, 1-21.*

Warm water in winter

By C. E. Worlan and Sherwood Searle

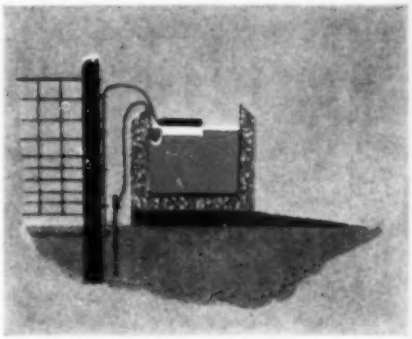
A stock tank or watering trough that's iced over won't provide water for your livestock. Neither will the hand-watered unit that runs out of water. Automatic waterers provide a water supply—winter or summer—without using your time and labor.

How much time and labor can you save with an automatic waterer? Tests by Iowa State College agricultural engineers on rural electric demonstration farms throw a welcome light on the subject.

C. F. Hotz, Fort Dodge, Iowa, saved 3½ miles of walking as well as the carrying of 3 tons of water per month to his 275-bird poultry flock. He did it simply by having two automatic poultry waterers. Workers on the Irene Kramer dairy farm, Waterloo, Iowa, saved 2½ miles of walking each month to "fire" a tank heater when they installed an automatic waterer in the barn. But laborsaving isn't the *only* advantage in using automatic watering equipment.

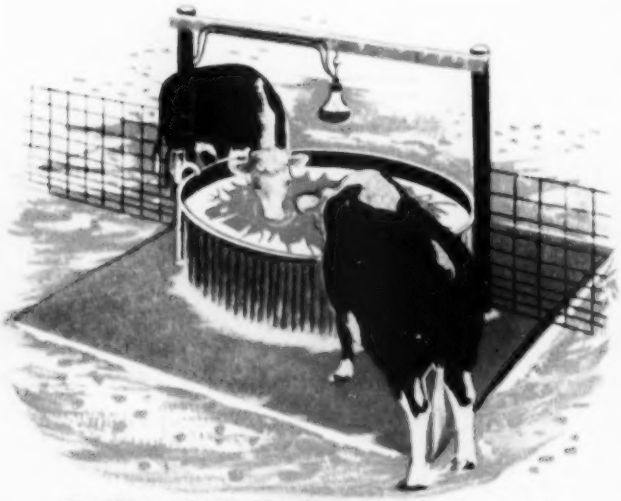
Automatic waterers produce faster gains by having water before your livestock *at all times*. Tests at Iowa State College last winter brought out this fact, too.

Two groups of pigs were put on test for 11 weeks to determine whether a continuously available supply of water would have any effect on winter gains. When the average outside temperature was 16 degrees, one group gained 10 pounds per pig more than the other. [*Turn to page 70*

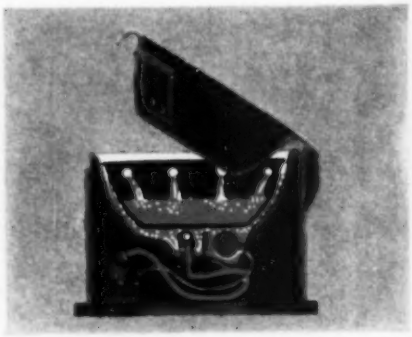


Floating de-icer contains thermostat, heating element. Soldering ground wire to sealed case protects animals from being seriously shocked

Two-compartment automatic cattle waterer can be heated with oil or electricity. Many cattle drinking, sheltered location, covers save fuel



One 250-watt infrared heat lamp suspended above water maintains 12- to 24-inch hole in ice even at 20-below temperature. Automatic operation may be had from a floating thermostat on surface



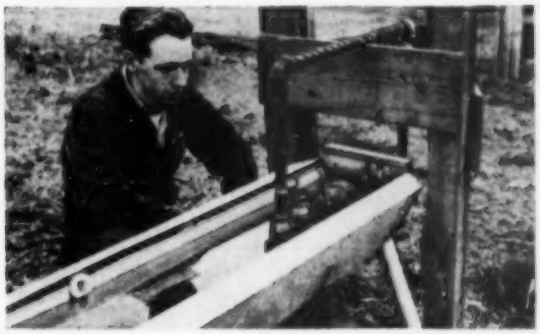
Automatic drinking cup electrically heats small quantity of water. Design requires weight of water to shut valve, water pressure to open

Tank de-icer keeps water open and saves having to chop holes in ice cover. Operating cost—about 14 cents per day, depending upon weather

Stock tanks may be modified for efficient, laborsaving use. Several lots are serviced at one time; large and small animals may drink. Insulation and covers conserve heat. Automatic float-controlled valve and immersion heater save labor. A concrete platform keeps the livestock out of mud

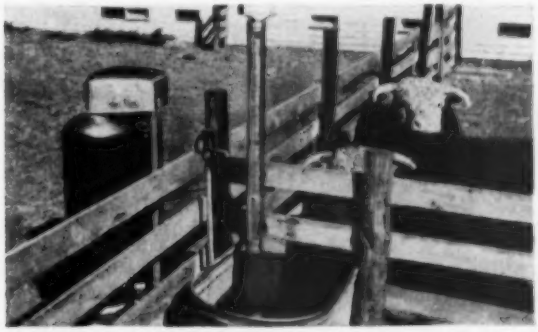
Drawings: Miner

Combination waterer has drinking space for hogs and cattle. Keeps large quantities of soil-warmed water entering troughs. Reduces cost



Household water tank, cut in half, makes 20-gallon stock tank. Thermoplastic heat tape in bottom prevents freezing. Inlet pipe is wrapped with more tape, controlled by separate thermostat. Float operates valve

Water bowl is suitable for large animals by mounting it on 17-inch high platform. Water and electricity enter from below through tile



Small tank, located in two lots, is efficiently used. Manually operated, gas-fired heater can often be turned off at noon after stock are watered. Automatic operatson is available on some units by thermostatic valves

From scrub oak and buckbrush to . . .

. . . an acre per cow and 80-bushel corn

Look what he did on $25 land!

Once a tenant farmer who owed more than he owned, Wendell Oden hacked and hauled on some southern Iowa hills until he had a farm he could be proud of. He says: "Watch out! Someday we'll grow more corn per acre than they do on the level land"

By Jerry Beery

Lindley, Weller, and Pershing—these are the soil names on Wendell Oden's Soil Conservation Service farm plan.

These names do *not* mean level land with black soil 10 feet deep. Instead, they mean land that was originally brushy, rolling pasture; timber; infertile, open fields; and occasionally cut by steep-sided ravines. For much of his farm Oden paid $25 an acre.

Today his cropland will match bushels with some of the best in the Cornbelt. There are cow-per-acre pastures where once there were brush-choked knolls and raw gullies. Fertilization, renovation, and hand clearing have drained time and dollars away from his more immediate desires, but have paid off.

Oden's story is one of outstanding management—management of his money, time, and land to build a productive, debt-free farm from third-rate land.

"We did it by frugal living—saving every penny and buying calves and other livestock."

Looking back to the lean years following 1934 when he started on his own in Appanoose County, Iowa, Oden says, "In those days I got the idea that if a farmer had a lot of livestock he could make a little money. So I built up my livestock. Pretty soon I was renting more acres in order to feed them. Then I reached a point where my labor could not be stretched further, so I bought hay. I had been doing this for some time when I read that if you took what you would spend on hay and spent it instead on fertilizer, you would get a lot more hay for your money. So I tried it—and the next year we didn't buy hay. We didn't need to.

"Those first four years (1934-1938) were hard for us financially. We were on a rented farm, and accumulating enough livestock and equipment for security on a loan was our toughest problem. We did it by frugal living—saving every penny not needed for absolute necessities—and buying calves and other livestock."

"I haven't worked miracles; I have just tried to apply the things I have seen and read."

In 1938 Oden received his first big financial boost. This came in the form of a $1,500 loan from the Farm Security Administration (now the Farmers Home Administration). The local supervisor made him an operating loan for additional horses and breeding stock.

Given this initial push by the F.S.A. loan, he forged steadily ahead. Oden says of himself, "I haven't worked miracles. I have just tried to apply the things I have seen and read. I watched the best farmers in my community. If a man had a better crop of corn, a good catch of seeding, or seemed to be feeding his livestock more efficiently, I had to find out why."

"We would have to own the land because no landlord would agree to what I wanted to do."

On the rented farm Oden expanded his operations to the point where his own labor could be stretched no further. He simply couldn't farm more acres, raise more hogs, and milk more cows and do a first-class job. He says, "I could have hired extra help or I could have tried to produce more per acre on that thin land. If I wanted to increase yields we would have to own the land because no landlord would pay his half on that much fertilizer and lime, so [*Turn to page 72*

Photographs: Pease

The latest answers to questions on—

Antibiotics

By Hans Dickinson

Although some of the shiny newness has now worn off antibiotics in livestock feeding as far as farmers are concerned, it's a different story with research workers. The men who told us about antibiotics in the first place are working harder than ever. They're finding new uses for antibiotics. And they're changing some of the feeding recommendations made when antibiotics first blew into the feed yard.

Many authorities in the field of antibiotic feeding claim we have only scratched the surface. The roar heard round the feedlot when antibiotics were first introduced may turn out to have been only a whisper. New discoveries may, again, revolutionize livestock feeding, breeding, and health.

To bring you up to date on the latest information concerning antibiotics, we pulled out of our notebooks some of the many questions you have asked while we visited with you in your feedlots. We took these questions to authorities on antibiotics. And here are their answers:

At what weight will I get the most good from antibiotics in a fattening-hog ration?

Begin feeding antibiotics when the pigs are put on a creep ration. Antibiotic-fortified feed should be fed at least up until the time the pigs weigh 100 pounds. Antibiotics fed during this period will increase gains of healthy pigs up to 10 to 20 percent and will do it on about 9 percent less feed than would be required without antibiotics. After the pigs weigh 100 pounds, the increase in gain from antibiotics drops to about 5 percent.

Is it possible to cut down on the protein requirements of pigs by feeding antibiotics in a fattening ration?

In a ration containing vitamin B_{12}, other B vitamins, trace minerals, plus antibiotics, *you won't need the higher protein levels recommended in the past.* For example, you'll get the same results with 14 percent protein plus antibiotics as you'll get with 16 percent protein without antibiotics.

Just how antibiotics produce a protein-sparing action isn't completely understood. But less protein is needed when antibiotics are fed.

The new protein recommendations for pigs receiving antibiotic-fortified feed are 14 percent from weaning to 75 or 100 pounds—after that 12 percent, and about 10 percent from 150 pounds to market.

What hog diseases are affected by antibiotics?

It's been well proved in many experiments that antibiotics have helped control certain types of scours. There is some indication, too, that antibiotics reduce the length of time and intensity of scouring if it occurs. There is also the possibility that antibiotics will control the *Salmonella cholera suis* organism. This organism doesn't cause cholera—it's often found in pigs having necrotic enteritis (necro).

Antibiotics also control certain types of organisms in the intestinal tract. And the different types of antibiotics appear to control different types of organisms. It may be that a combination of the different antibiotics will prove to be better than one antibiotic alone.

Some farmers complain that their pigs never seem to react as well to antibiotic feeding as hogs fed by their neighbors. What these men don't know is that this is probably a good indication that they're better hogmen than their neighbors. For it's a fact that the higher the disease level of a herd, the better the hogs respond to antibiotics. In other words, a disease-free pig won't show as much growth response to antibiotics as a pig coming from a high-disease-level herd. Needless to say, no hogman will use this fact as an excuse for slacking up on careful sanitation in the hoglot.

Does it pay to feed antibiotics to hogs on good pasture?

In an experiment at the University of Minnesota, it was found that pigs on pasture ate more feed—and therefore gained faster—when fed a ration containing an antibiotic and B_{12}. This also was found to be true at Iowa State College, Purdue University, University of Illinois, and at many other testing agencies.

This article answers some of the many questions on antibiotics which we here at *Successful Farming* receive from you. To get the answers, we visited some of the top authorities in the field of livestock feeding

In the Minnesota test, pigs fed the antibiotic and vitamin supplement reached 200 pounds about 2 weeks earlier than those fed a good "control" ration without the antibiotic and B_{12}.

Feeding the antibiotic and vitamin supplement to pigs on pasture did not appreciably reduce the feed requirement per unit of gain in the Minnesota experiment. However, other experiments *have* shown a feed saving.

Are antibiotics an important part of a substitute-sow's-milk ration?

The best way to answer this is to say that without antibiotics we probably would not have the fairly widespread use of substitute sow's milk that we have today.

If antibiotics are fed to the sow, will their effect be passed along to the pigs?

The milk from sows receiving antibiotics does contain some of the antibiotic. This has been shown to be true where sows were fed 20 milligrams, or higher, of an antibiotic per pound of ration. However, there is insufficient research at present on the value of antibiotic feeding for sows during gestation and/or lactation. It's believed that even though some antibiotics are transmitted to the pigs through the sow's milk, the amount is so small that it may not help the pigs much.

Do antibiotics result in hogs with more fat?

You can start an argument on this question wherever hog feeders or buyers hang their hats. In three experiments at Iowa State College, litter mates were used. One of the pigs was fed antibiotics; its litter mate was not. This method was used on quite a number of litter mates. When these pigs were slaughtered, there was absolutely no difference in the amount of fat. Dr. Damon Catron of Iowa State College says that if antibiotics do make fatter hogs, the fat is internal fat, not back fat. Purdue University reports that in one test, antibiotic-fed pigs definitely carried more fat. So, there is still some difference of opinion.

Is the new pellet form of administration as effective as the oral, or feeding, method?

The use of the pellet, where a small piece of antibiotic is implanted behind the pig's ear, is the newest method of using antibiotics. In fact, this method is so new that there is very little information available on it. The best we can say at present is that good results were obtained in an Arkansas experiment. Other experiments are going on now and as soon as these results are available, *Successful Farming* will report them.

What is the best antibiotic level to include in a growing-fattening ration for hogs?

The most practical, effective feeding level of antibiotics is approximately 5 milligrams per pound of total ration. However, this amount depends somewhat on the particular antibiotic fed and the disease level of the herd. Antibiotic levels commonly used in treating diseases are 30 to 100 times feeding levels.

Is there any advantage in feeding antibiotics to pullets on range?

Recent experiments indicate that there is little, if any, advantage in feeding an antibiotic to chickens after they have reached 6 to 8 weeks of age. Beneficial effects are confined largely to the period of most rapid growth. Growth increases of about 10 percent may be expected in chickens up to 8 weeks of age.

What effect do antibiotics have on egg quality?

Up until the present time, antibiotics have not been found to affect the quality of eggs.

Do antibiotics have an effect on hatchability?

Adding antibiotics to the ration of laying hens apparently won't improve the hatchability of eggs when birds are maintained under practical conditions. More work is under way on this question.

Do antibiotics affect poultry diseases?

As in hogs, antibiotics appear to help control intestinal disorders. Apparently, the antibiotics kill or reduce the disease organisms in the intestines of the chicken.

When can antibiotics be fed to young chicks?

As we said before, the greatest effect of antibiotics is during the period of most rapid growth. Therefore, chicks should be fed antibiotics in their first feed and continued on antibiotic-fortified feed until 6 or 8 weeks old.

Should a broiler ration contain antibiotics?

Some authorities recommend that antibiotics be included during the entire feeding period of broilers. These authorities feel that the antibiotics will assure maximum growth and feed efficiency—both essential for making a profit on broilers. One experiment has shown that removing antibiotics from the ration during the period of rapid growth slows down growth. [*Turn to page 86*

This home says Greetings *the whole year*

A special box at the front entrance for overshoes means no muddy tracks inside. Plants in the flower boxes add a welcome touch to the entrance

By Betty Fisk

"Oh, what a comfortable home!" That's what people say when they visit Bob and Ann Fleming in their 2-year-old farm home near Carlisle, Iowa. It is gracious and charming, yet practical and efficient—as it *must* be, since two bouncing boys complete the Fleming household. Family life and entertaining center around the large living-dining room. Picture windows at each end capture the view of the countryside and give the room a feeling of spaciousness. Old furnishings were blended to look as if they belonged together by careful planning of color schemes and slipcovers. The result is a warm and hospitable room which lends itself to happy, informal living in the country.

Furniture around fireplace makes friendly conversation grouping. Sofa serves as divider between living and dining areas and adds warm touch to the color scheme. Slipcover to match wallpaper design distributes pattern ▶

Photographs: Suter, Hedrich-Blessing

Pass-through from kitchen to dining area saves many steps for Ann when she's serving meals. The cabinets also open into both rooms. Draperies are of bagging in off-white color to match woodwork and wallpaper background

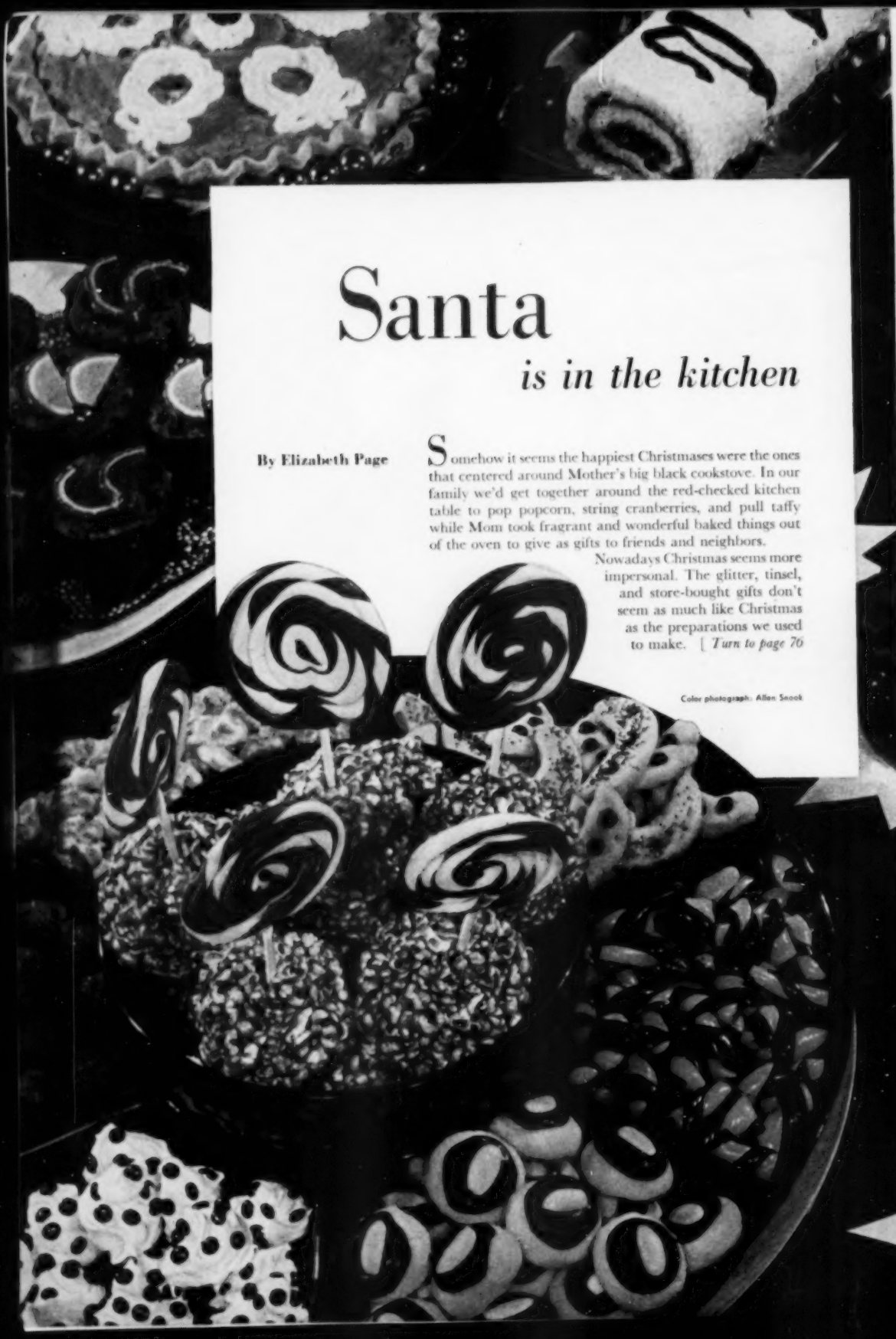
Opposite end of the living room makes small study and an office for farm business. Shelves offer plenty of space for books and a spot for the radio-record player

Santa
is in the kitchen

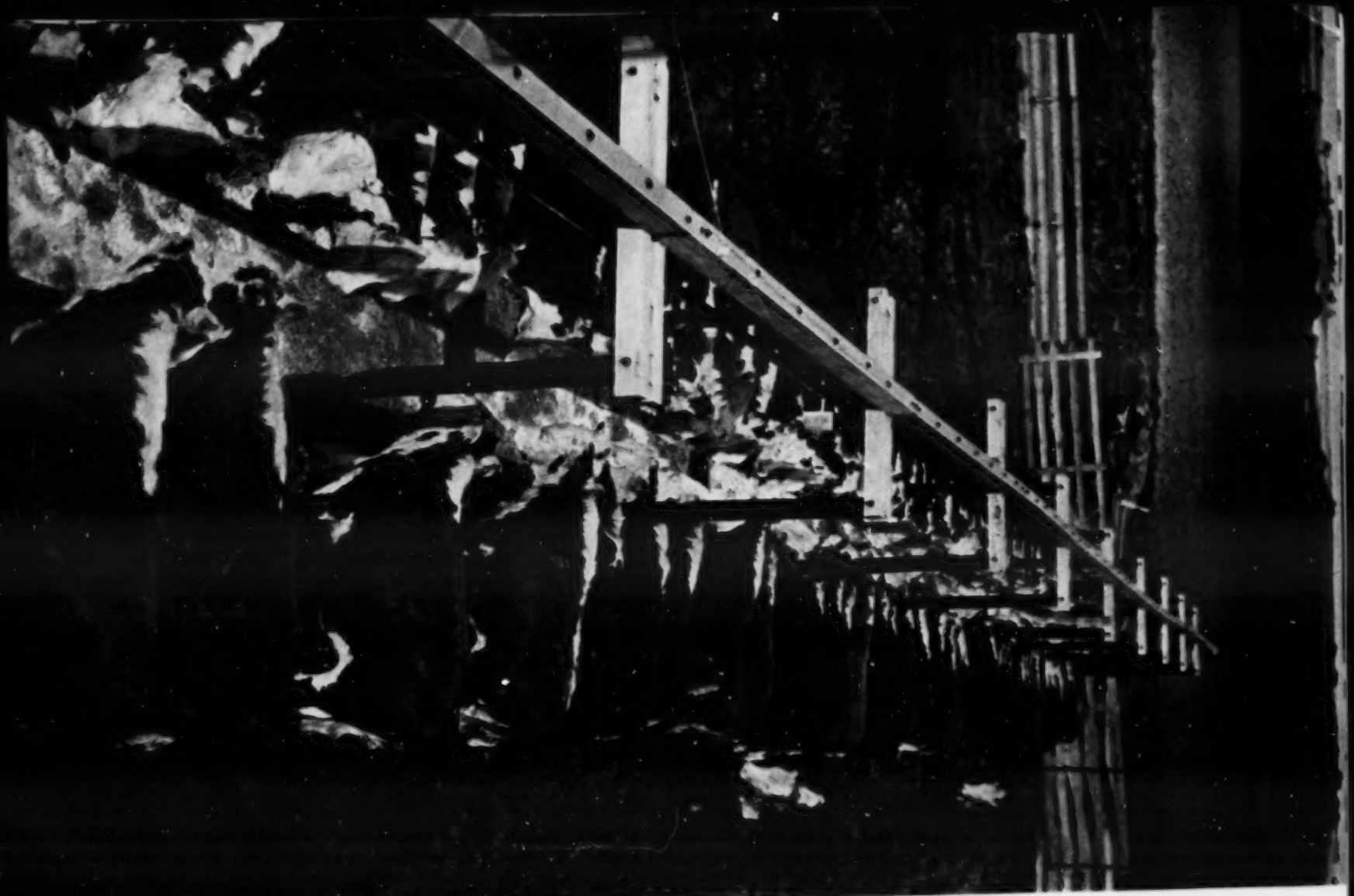
By Elizabeth Page

Somehow it seems the happiest Christmases were the ones that centered around Mother's big black cookstove. In our family we'd get together around the red-checked kitchen table to pop popcorn, string cranberries, and pull taffy while Mom took fragrant and wonderful baked things out of the oven to give as gifts to friends and neighbors.

Nowadays Christmas seems more impersonal. The glitter, tinsel, and store-bought gifts don't seem as much like Christmas as the preparations we used to make. [*Turn to page 76*



Color photograph: Allen Snook



Here are some laborsavers used at McCord's

The trench silo is located at one end of the feeding yard. Ken drives his tractor equipped with a scoop into the silo, then dumps the red-clover silage into the feed cart

Small conveyers do most of the feed lifting. The feed cart can be lowered to floor level for dumping sacks of supplement or other feed

An overhead bin, filled by conveyer, holds feed. The feed cart is lowered to the floor for filling

Year-round grazing at the feed bunk

Photographs: Hufnagle

AT LEFT AND ABOVE. The feed cart is pushed out over the end of the yard, then filled with silage. Cart is pushed along bunk for feeding. The electric motor on the feeding cart is used to raise or lower the cart when it is filled with clover silage, ground feed, or supplement

"Bring the pasture to the cattle instead of the other way around," says this beef feeder. And his feeding system makes sense—as well as money

By Dick Hanson

You can walk all over Ken McCord's 60 acres of pastureland and never see a critter's hoofprint.

From the time feeder cattle are bought in October until they're sold as finished beef in July, the longest walk they ever take is from one side of the feed yard to the other. But these cattle don't lack for roughage. To Ken's way of thinking, the cattle are "on pasture" from the time they're bought until 90 days before they're sold.

This young Colon, Nebraska, farmer, along with his father, Harold, is doing something a little different in cattle feeding. He's bringing his pasture *to* the cattle instead of letting the cattle go to the pasture. Sound backwards? Ken doesn't think so. Here's his reasoning:

"The fields on my farm that should be, and are, in legumes and grass are too far from the buildings and water for the cattle. I like to have the cattle where I can keep an eye on them. Harvesting the pasture crop and feeding it in winter as 'pasture' makes more pounds of beef per acre and lets me beat the market by selling cattle in the off season.

"I store all my feed so I know a year ahead just how many cattle I can handle. If I counted on pasture grazing, I'd never know how many head [*Turn to page 92*

How to get more holiday *—less* workday

By Maurine Harris

Holidays are no fun if you let routine household chores get too important. Here are some take-it-easy tools and tips to save your day

For dining, living rooms

1

2

3

1. A lightweight, smooth-gliding carpet sweeper snatches up dinner crumbs in short order

2. Dinner can be cooked and served in a versatile casserole. A candle keeps the "vittles" hot!

3. No lift, no stoop, no drag—a cart with rubber wheels can easily tote your vacuum cleaner

4. Enjoy meals! Plastic table covers don't require laundering. The cover above is plastic, too

5. There are messless paper bags for most types of cleaners—just toss bag and dirt away. (This cleaner has own wheel cart, too)

4

Worksavers for the kitchen

1

2

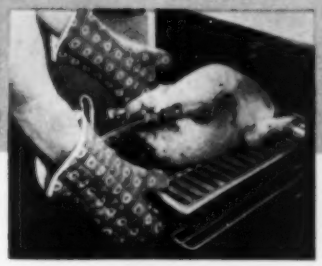
1. Little tools for quicker cleanups: a clean plastic garbage pail; rubber scrapers—the long-handled one for pitchers

2. Potatoes, carrots, apples can be peeled twice as thin in half the time if they're whisked over with this peeler

3. Less wasted time—fewer accidents if you wear a pair of whopping, quilted potholder mitts to handle hot cookware

4. Good light on work space speeds your work, prevents fatigue. This one is just hung on wall, plugged in outlet

5. Into the cupboard and out again every mealtime is wasted work—leave table things on trays during holidays



3

4

5

These tips help in the bathroom

3

1. No backache from bathtub ring—sprinkle it with some powdered bleach; then use long-handled brush or mop

2. "Spiffing up" the bathroom is easier with a self-wringing mop, a hamper with place for brushes and cleaners

1

2

Photographs: Pease, Hopkins

Answers to your Problem spots

Contour strips, terraces, low spots, odd-shaped fields, heavy livestock traffic—all are special fencing problems. Here are answers to tough spots

Contour-fencing study, using steel, wooden posts, found posts should lean out, spacings vary

Ordinary level, with metal at lower end, is used by Walter Pomerene to measure 2" lean-out

Place wire on outside of posts on curve so it pulls against posts. Note wire crosses from one side to the other

By Vernon Schneider

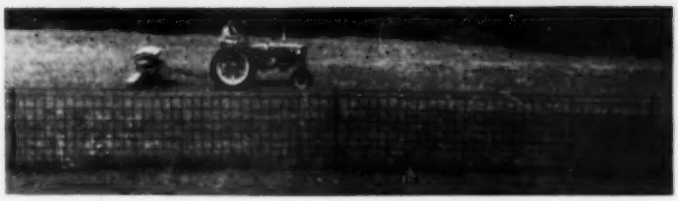
Nearly all livestock and grain farms have fencing problems of some sort. Soil and water conservation programs have introduced contour cultivation, terraces, and diversion ditches. Low spots and water gates are a problem on most farms. Special fencing is needed around livestock.

On this page is shown the contour-fencing project started in 1947 at the North Appalachian Experimental Watershed of the United States Soil Conservation Service near Coshocton, Ohio. The project was set up to study (1) the need for different spacing of posts and (2) the variations in tension in stretching the wire fence (see page 107 for results). After five years, contour fencing has proved both satisfactory and practical. Answers to other fencing problems are found on opposite page.

Determine distance between posts by driving stakes at 1-rod intervals. Stretch string between first, third stakes. Measure distance from center stake to string. Repeat wherever curvature changes. See page 107 for the recommended spacings

A

B

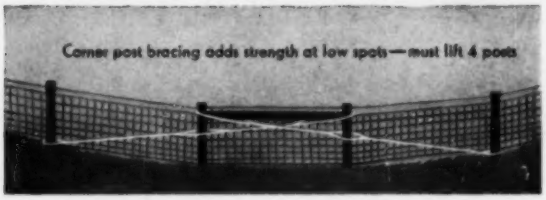


in fencing

Double-post corner adds strength to fence in low spot where flooding is problem, says Paul Montavon, De Kalb County, Illinois. Brace posts are set at angle. Corner makes mowing easier

Photographs: Munroe, Pease, Hopkins, Hufnagle

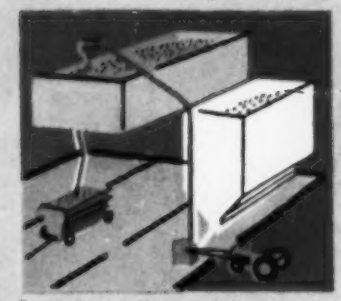
Regular corner bracing is used on Iowa State College farm to give strength to 140-degree corner. Even slight corners need bracing. Such odd-degree corners show up around waterways or in terraces



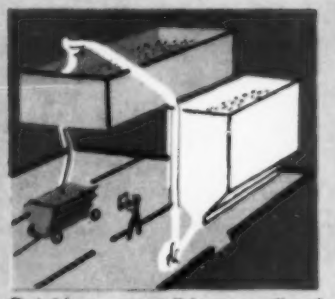
Bracing in depression on University of Minnesota's Rosemount Research Center prevents wires from lifting posts when the wires shorten during winter. Slightly larger posts (8-footers) are used

Supplemental electric fence protects permanent bullpen fence of the ▶ Rosemount Research Center. Two strands of wire are nailed to 2x6s treated with a preservative. Bulls respect "hot" wire. Same idea can be used near bottom of hogpen fences or at top when horses are problem

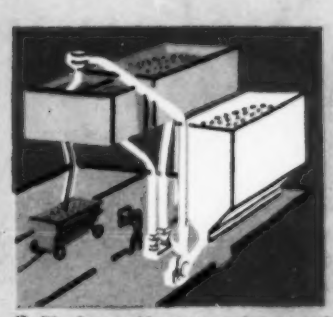
You can adapt this system in four steps:



1 An ear-corn hopper and drag is the first addition. You can continue to use your present grinder until ready for Step No. 2

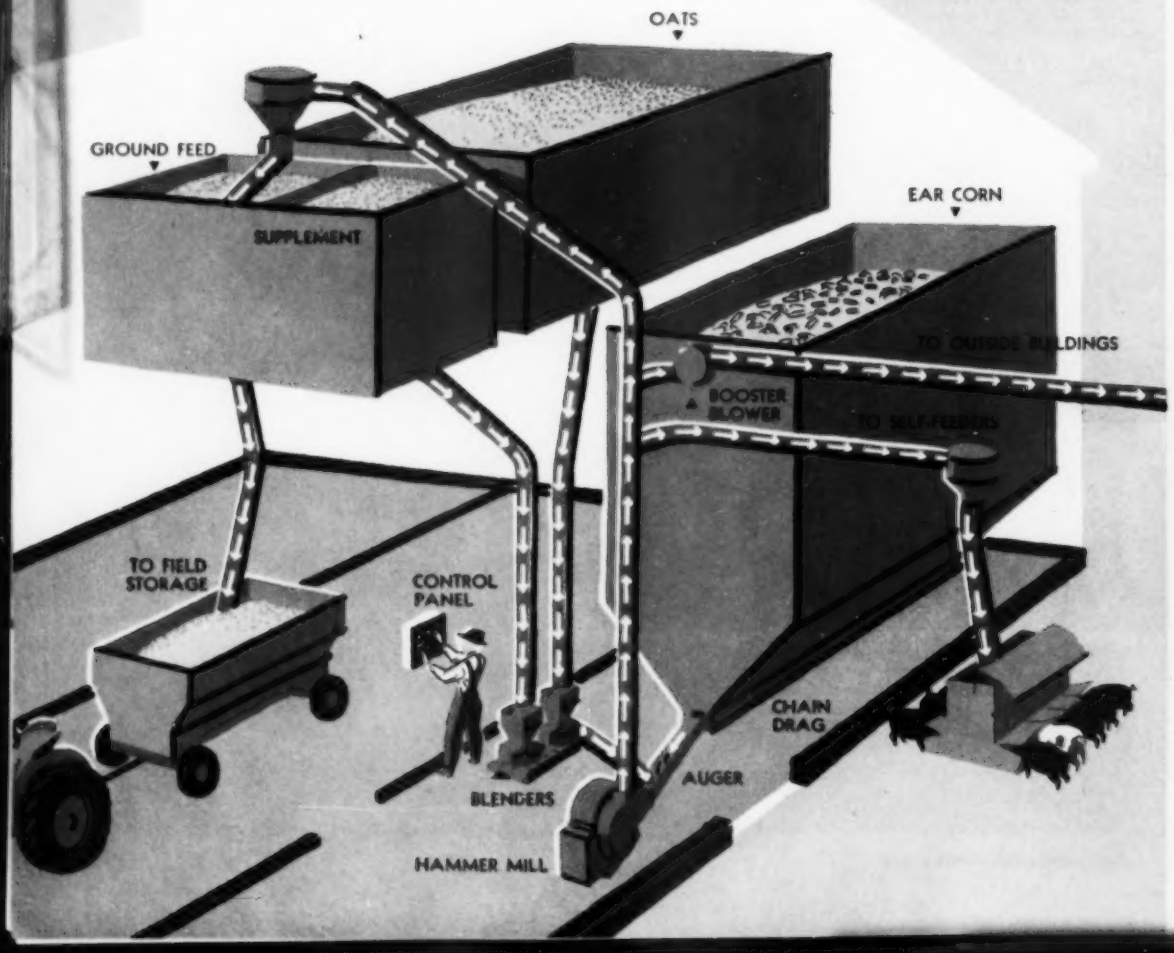


2 A 5-hp motor, small hammer mill, and control panel make the system automatic. You do your other chores while grinding feed



3 Blenders enable oats, supplement, and other ration ingredients to be added and mixed in the proper proportion to ear corn

4 A booster blower, pipes to other buildings, and remote switch controls are final refinements. Ground feed is automatically directed to the place where it is consumed



You can build yourself an

Automatic feed-grinding system

By Russell Van Cleve and S. S. DeForest

Suppose by merely pressing a button you could obtain freshly ground feed, mixed to the proper proportion with whatever ingredients your rations require? By going a step further you could have it transported to the wagon, self-feeders, or feedbins without scooping or carrying. Sound hard to believe? Not at all. This type of equipment is not "out of this world." Agricultural engineers at the University of Illinois, in cooperation with the United States Department of Agriculture and the Public Service Company of Northern Illinois, have developed just the brainy device for doing this. You can adapt your own situation to automatic feed grinding. It doesn't necessarily have to be a special setup. You can proceed in steps until finally you have all the refinements.

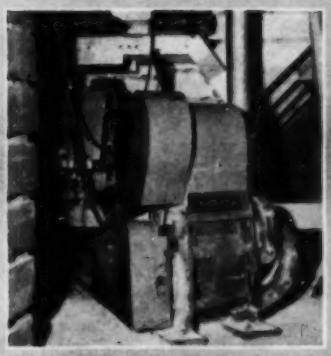
Let's understand what's needed to make feed grinding automatic so you can work out a practical system for your own farm.

You'll need a combination of motors, conveyers, blenders, switches, and hoppers to go along with the grinding mechanism. Needless to say, it's all electric. Using electricity lets the automatic features be built more easily than in any other way. However, it does present some problems.

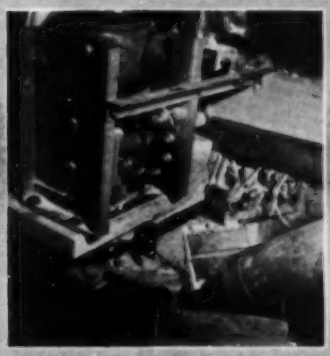
In the first place, when you use electricity, your farm wiring arrangement—location of the transformer, size and length of wires, and so forth—limits the type and size of equipment that you can use in your feed-grinding operations. Even with the best wiring setup on your farm, the largest single-phase motor usable is 7½ hp. The agricultural engineers found in the design of the Illinois automatic feed grinders that a 5-hp motor was satisfactory under practically all conditions.

This relatively small power unit—as compared to the tractor—means a small [*Turn to page 102*

Here's the equipment you need for this system



Hammer mill equipped with a clutch and auger. Starting and stopping auger loads or unloads mill. Solenoid controls the clutch



Ear-corn drag must be strong enough that it can pull ear corn through a small opening. Auger carries ration ingredients to the mill

Blenders or mixers. Raising the small hopper allows more material to be scraped off the rotating disc into the chain conveyer

Drawing: Elmer Jacobs. Photographs: Van Cleve

A merry Christmas!

From you to your family and friends, a host of gay gifts, packages, and a center-piece full of after-dinner surprises

By Carol Towers and Nancy Carpenter

You don't need a touch of artist in you to create a bit of Christmas that is all your own. With just a few simple strokes or stitches you can tuck your own personality right into the packages you wrap, the table you set, and the gifts you send.

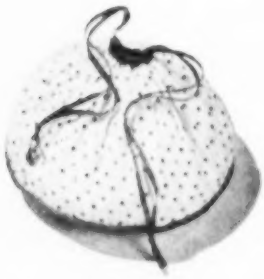
Presents from your hand as well as your heart are always cherished. In each one are your own special thought, time, and effort. And you know yourself what a pleasure it is to receive attractive "handmades" from others.

The gifts and packages featured here were chosen with the originality and ease of making in mind. All of them are inexpensive, and use materials which are already on hand at home or easy to purchase in any shopping center.

To make these Christmas originals:

Drawstring cover. Cut a fabric strip 38" long and 8½" wide. A seam allowance of ¼" is included in these dimensions. Cut circle 12" in diameter. Stitch one edge of strip to outer edge of circle. Finish seam with bright bias-tape edging. Sew strip of matching bias tape to inside [*Turn to page 104*

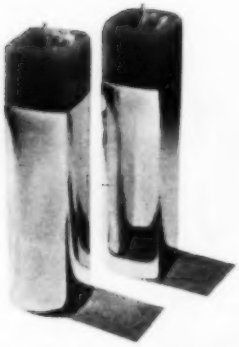
For the hostess, here is a dainty dotted-swiss apron that she can wear outside of the kitchen



A drawstring cover makes carrying a casserole to group suppers easy

Ruffled polka-dot apron combines a real swish with practical cover-up

Old-fashioned, feminine, this eyelet design boasts a lace trim and two saucy black bows

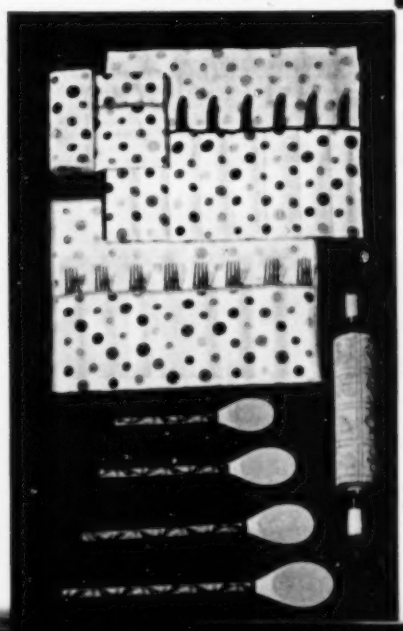


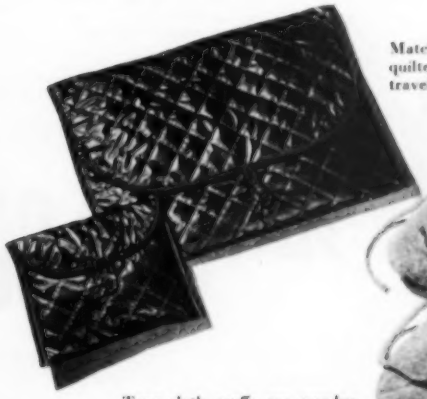
A pair of smart candleholders like this makes an unusual gift. Add monogram design if you wish

Clever, colorful bathroom set lends a real decorator's touch to home. Decorate it with initials or cut-out designs

Here's a treasure of gift ideas, centerpiece, and wrappings spread out at your finger tips. They're ready to give a bright and festive note to your holiday planning

Silver cases, springerle roller, and wooden mixing spoons all have the professional look but are deceivingly simple to make





Matching lingerie cases in a soft, quilted plastic are grand for traveling and for using at home

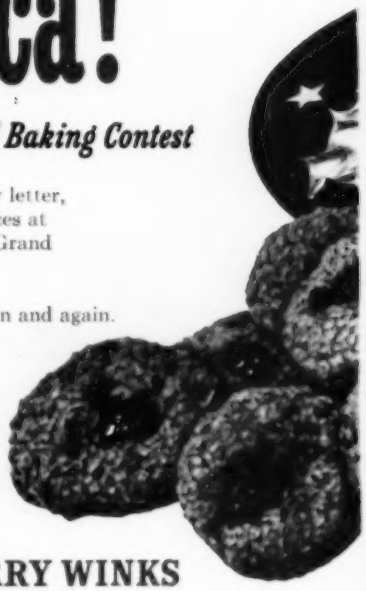
Terry-cloth scuffs are wonderfully cushiony, a joy to wear. They're perfectly washable, too

Photographs: Hopkins

New fun for the Holidays...

The Most-Wanted Cooky in All America!

...from Pillsbury's $100,000 Grand National Recipe and Baking Contest



Here are the cooky recipes that started requests flooding in by letter, postcard, telephone, telegraph—the moment they won big prizes at the Waldorf. Literally, *millions* of recipes for these Pillsbury Grand National cookies have gone into American homes. And people have liked them so much, that American women (so surveys show) have baked these prize-winning cookies again and again. This recipe shows how to make the $5,000 Cherry Wink Cookies the way the winner did at the Bake-off. (You use Kellogg's Corn Flakes and Pillsbury's Best Flour, of course.) And for more Grand National holiday cooky recipes, simply look in your bag of Pillsbury's Best. Don't you want to fill up your holiday cooky jar with these famous cookies?

GRAND NATIONAL PRIZE WINNER

Pillsbury · GRAND NATIONAL · Recipes

THE $5,000 CHERRY WINKS

by Mrs. Ruth Derousseau, Rice Lake, Wisconsin

BAKE at 375° F. for 10 to 12 minutes. MAKES about 5 dozen cookies.

Sift together 2¼ cups sifted **Pillsbury's Best Enriched Flour***
1 teaspoon double-acting **baking powder**
½ teaspoon **soda**
½ teaspoon **salt**

Combine... ¾ cup **shortening**
1 cup **sugar**; cream well.

Add..... 2 **eggs**
2 tablespoons **milk**
1 teaspoon **vanilla**; beat well.

Blend in.... dry ingredients gradually; mix thoroughly.

Add..... 1 cup **pecans**, chopped
1 cup **dates**, chopped
½ cup **maraschino cherries**, chopped; mix well.

Shape..... into balls using 1 level tablespoonful of dough for each cooky.

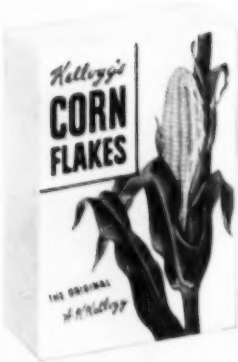
Crush ..... 2½ cups **Kellogg's Corn Flakes**. Roll each ball of dough in corn flakes.

Place..... on greased baking sheet. Top each cooky with ¼ **maraschino cherry**.

Bake..... in moderate oven (375° F.) 10 to 12 minutes.

*If you use Pillsbury's Best Enriched Self Rising Flour, omit baking powder and salt; decrease soda to ¼ teaspoon.

Perfect results can be guaranteed only with Pillsbury's Best Flour and Kellogg's Corn Flakes.



Kellogg's CORN FLAKES

Recipes

Coconut Cherry Drops, prize-winning Grand National recipe by Miss Adele Guerin, St. Paul, Minnesota. Simply prepared cookies with cherries, pecans, coconut.

The $10,000 Starlight Mint Surprise Cookies, prize-winning Grand National recipe by Miss Laura Rott, Naperville, Illinois. Chocolate mints are baked inside these cookies.

Bonnie Bran Cookies. When you take a bite of this new holiday-time cooky, you will taste spicy mincemeat and the good crunchiness of Kellogg's All-Bran.

Swedish Heirloom Cookies, prize-winning Grand National recipe, by Mrs. Carlos Wheaton, Hopkins, Minnesota. Traditional holiday cookies—rich and buttery.

Look in the bag for all these Holiday Cooky Recipes

Pillsbury's BEST

The GRAND NATIONAL Flour

Now, Tide washes clothes WHITER than any bleach can bleach them!

Yes, TIDE washes clothes even WHITER than soaking in bleach overnight!

No more need to bleach, except for stubborn stains!

Just put your clothes in Tide's gentle, so-safe suds . . . and they will come out *whiter* than they'd be if you'd soaked them long hours in strongest bleach! It's washday's big news! No bleach known can match Tide's amazing whitening action!

So SAFE to use!

With all its wonderful whitening action, Tide is really *safe* for *everything* that's washable . . . the most delicate fabrics, the daintiest colors. Colors love Tide's gentle suds. Why, after just *one* wash, Tide actually *brightens* soap-dulled colors!

Cleaner clothes, too!

When you rinse out a Tide wash, you've got *cleaner* clothes than you will get with any soap *of any kind!* No soap known will get out so much grimy dirt, yet leave clothes so free of dulling film. Get Tide today! Remember, no other washday product—bleach, soap, or "detergent," will give you a *whiter*, cleaner wash than Tide!

TIDE is MILDER for hands than any other leading "detergent"!

Yes, Ma'am! Tide has a wonderful new mildness—it's so gentle, so kind to your hands. Why, not even the mildest leading "detergents" that are made especially for *dishwashing* are so easy on your hands as Tide. Try it—see for yourself how much milder Tide is.

TIDE IS SO THRIFTY TO USE—you'll be amazed! Such a *little* Tide makes such oceans of rich, long-lasting suds . . . such a *little* Tide goes so far in hardest water, it's a miracle of economy.

NO OTHER WASHDAY PRODUCT bleach—soap—or "detergent" WILL GIVE YOU A WHITER, CLEANER WASH THAN *TIDE*!

French Cocoa Balls

Makes about 2½ dozen

Mix together thoroughly:
- **½ cup cocoa**
- **1½ cups sifted confectioners' sugar**
- **½ teaspoon salt**

Add ..... **1 cup chopped pecans**
- **½ cup sweetened condensed milk**
- **1 teaspoon vanilla**

Mix well.
Form into 1-inch balls and chill.
Roll balls in mixture of:
- **2 tablespoons cocoa** and
- **2 tablespoons confectioners' sugar**

Store in refrigerator in covered container.

Pecan Brittle

Makes about 2 dozen pieces

Heat together in heavy frying pan over high heat until sugar starts to lump:
- **3 cups sugar**
- **½ teaspoon salt**

Lower heat and stir until sugar melts.
Stir in ..... **2 cups chopped pecans**
- **2 tablespoons butter**

Pour immediately onto greased cooky sheet, spreading thin.
Cool and break into pieces.

—Miss Bertha Rohrich, Nebraska

Molasses Popcorn Balls

Makes six 5-inch balls

Combine ..... **¾ cup light molasses**
- **¼ cup sugar**
- **2 tablespoons water**
- **1 teaspoon vinegar**
- **¼ teaspoon salt**

Cook slowly, stirring constantly, to 250° on candy thermometer.
Remove from heat.
Add ..... **1 teaspoon vanilla**
- **2½ tablespoons butter**
- **½ cup peanuts**

Stir just enough to mix.
Pour over **1½ quarts popped corn,** stirring constantly.
Butter hands; shape mixture lightly and quickly into balls.
Cool and wrap in waxed paper.

—Mrs. L. W. Foubert, Iowa

Holiday salads

Here are five salads that are a bit special—just right for a season when you are in the mood for fancy food

Piquant Shrimp Salad

Makes 8 salads

Dissolve ..... **1 3-ounce package lemon-flavored gelatine** in
- **1 cup hot tomato juice**

Add ..... **1 cup cold tomato juice**
- **1 tablespoon vinegar**

Cool until partially set.
Add ..... **1 7-ounce can (1 cup) shrimp,** cut in small pieces
- **½ cup chopped celery**
- **1 teaspoon grated onion**

Pour into ½-cup molds; chill.

—Mrs. A. D. Trochinski, Minnesota

Turkey Mousse

Serves 9

Soften ..... **1½ tablespoons unflavored gelatine** in
- **3 tablespoons cold water**

Dissolve ..... **1 chicken-bouillon cube** in
- **1 cup boiling water**

Add to softened gelatine and stir until gelatine is dissolved.
Add ..... **1 tablespoon lemon juice**
- **⅛ teaspoon salt**
- **dash celery salt**
- **dash paprika**

Cool until partially set.
Beat with rotary beater until light.
Fold in ..... **1 tablespoon minced onion**
- **1 cup ground cooked turkey**
- **1 cup heavy cream,** whipped
- **2 stiff-beaten egg whites**

Turn into 9x9x1¾-inch pan.
Chill until set.
Slice ..... **jellied cranberry sauce** in ¼-inch slices.
Cut in Christmas shapes.
Arrange on top of salad.
Cut salad in squares to serve.

—Mildred Goldsmith, Kansas

Bing-cherry Salad

Serves 6

Drain 1 No. 2 can Bing cherries
Dissolve 1 3-ounce package cherry-flavored gelatine in
1 cup boiling water
Add cherry juice and cold water to make 1 cup
Chill until partially set.
Mix together and form into balls:
1 3-ounce package cream cheese
1/4 cup chopped walnuts
Add cheese balls and
1 1/2 cups pitted Bing cherries to gelatine
Pour into individual 1/2-cup molds.
Chill until firm.

—*Mrs. Glen H. Bathe, Colorado*

Ice-cream Dessert Salad

Serves 8 to 10

Dissolve 1 3-ounce package lemon-flavored gelatine in
1 cup boiling water
Chill until partially set.
Add No. 2 can (1 cup) crushed pineapple, drained
1 pint soft vanilla ice cream
1/2 cup chopped pecans
1/4 cup diced maraschino cherries
Mix well and quickly pour into paper-lined muffin tins.
Freeze until firm.

—*Miss M. Klocke, Iowa*

Cranberry-chunk Salad

Serves 6

Beat 1 3-ounce package cream cheese with
2 tablespoons mayonnaise
2 tablespoons lemon juice
pinch of salt
Add buffet can (1/2 cup) crushed pineapple, drained
1/2 cup chopped walnuts
1 cup diced bananas
Fold in 3/4 cup heavy cream, whipped
1 cup canned jellied cranberry sauce, cut in cubes
Turn into small refrigerator tray.
Freeze until firm.

—*Mrs. L. W. Foubert, Iowa*

Festive tidbits

All these candies make wonderful toe stuffers for your eager youngsters' Christmas stockings

Butter Crunch

Makes about 2 dozen pieces

Combine 1 cup sugar
1/2 teaspoon salt
1/4 cup water
1/2 cup butter
Heat to boiling.
Cook to light-crack stage (285°).
Add 1/2 cup finely chopped walnuts
Pour onto well-greased cooky sheet.
Cool.
Spread half of
1 6-ounce package semi-sweet chocolate pieces, melted, over top of candy
Sprinkle with half of
1 cup finely chopped walnuts
Let stand until chocolate is set.
Turn and spread with remaining half of chocolate and walnuts.
Break into pieces to serve.

—*Mrs. Maude Ingebretson, South Dakota*

Pralines

Makes about 2 dozen pieces

Combine 2 1/2 cups brown sugar
dash of salt
1 tablespoon butter
1 tablespoon light corn syrup
3/4 cup milk
Cook, stirring only until sugar dissolves, to soft-ball stage (238°).
Cool at room temperature, without stirring, until lukewarm (110°).
Add 1 teaspoon vanilla
Beat until mixture holds its shape.
Add 1/2 cup broken walnuts
Spread quickly in greased 8x8x2-inch pan.
Cool and cut into squares.

Latest "know-how" in foods

Your market basket of new products, ideas, research

If you're partial to Italian cooking, try pizza pie mix. It contains dough mix and a can of pizza sauce. It's a real time-saver! Try variations of your own; top with sausage, mushrooms, or a sharp cheese.

No more fretting while you remove the tiny vein in shrimp—with frozen de-veined shrimp. The shell is split and the dark vein removed by a special factory process. All you have to do is simmer the shrimp for only 2 minutes and the shells slip off easily. Chill and serve with a spicy sauce.

When you're in a hurry, or your coffeepot is out of commission, you'll find that coffee bags make a cup in a jiffy. Just put one of the bags in a cup, add boiling water, and let it brew to just the right strength. With this method everyone in the family can have coffee as he likes it. The bags are packed in a vacuum-seal jar. After opening the jar, store in the refrigerator to keep the freshness.

For the holiday, you'll find fruitcake mix will save you time in the kitchen. Making this fruitcake is a simple matter of adding eggs and water; even the pan for baking is included. The package makes 1¼ pounds of cake.

Orange-apricot and orange-prune juice are two new juices prepared especially for babies. Come in a 4-ounce can ready to use. Each is pasteurized and strained—ready to pour in Baby's bottle.

New instant puddings are now on the market—they take no cooking. You can make vanilla, chocolate, or butterscotch pudding with a chiffonlike texture or creamy smoothness—just follow directions on the package. Each 4-ounce package makes 4 to 6 servings. Grand for pie or cream-puff filling, too.

Sundae topping now comes packaged in 3⅛-ounce plastic bags. To open, tear off a corner of the bag, and pour over your ice cream. Comes in fudge, strawberry, pineapple, and butterscotch flavors. It's no trick to fix a hot topping; just heat the unopened package in hot water for 1½ minutes. Each package contains enough topping for 4 servings. END

Start right finish LIGHT!

Calumet Gives Supreme Lightness To...

PECAN-RAISIN KING'S CAKE

A Product of General Foods

3 cups sifted Swans Down Cake Flour
3 teaspoons Calumet Baking Powder
1 teaspoon salt
¾ cup raisins
¾ cup shortening
1¾ cups sugar
3 eggs, unbeaten
½ cup very finely chopped pecans
*Milk (see below for amount)
1½ teaspoons vanilla

*With butter, margarine, or lard, use 1½ cups milk. With vegetable or any other shortening, use 1½ cups milk.

Note: This recipe was developed especially for CALUMET Baking Powder. So to bake this rich-tasting cake wonderfully light, be sure to use CALUMET. And remember, whenever you're baking cakes, biscuits, waffles or other treats, your best bet is CALUMET. Double-Acting CALUMET lifts and lightens *both* in the mixing bowl and in the oven's heat . . . insuring your baking success. No wonder good cooks choose CALUMET 2 to 1 over any other baking powder.

Method. Sift flour once, measure, add CALUMET Baking Powder and salt, and sift together three times. Place raisins in saucepan, cover with water, and bring to a boil. Then drain and chop very fine.

Cream shortening, add sugar gradually, and cream together until light and fluffy. Add eggs, one at a time, beating thoroughly after each. Then stir in nuts and raisins. Add flour mixture, alternately with milk, a small amount at a time, beating after each addition until smooth. Add vanilla; blend.

Baking. Pour batter into two round 9-inch layer pans, 1½ inches deep, which have been lined on bottoms with paper. Bake in moderate oven (375°F.) 35 to 40 minutes, or until done. Cool. Then frost with your favorite fluffy white frosting and garnish with pecan meats and candied cherries.

DOUBLE-ACTING
Calumet BAKING POWDER

Here's One Santa Claus you CAN Believe In

Behind the Whiskers —a man you know!

You know him, and he knows you. He's your friendly, home town hardwareman. Right now, he's ready to help you play Santa Claus to friends and loved ones. His store is packed with lasting, practical gifts—enduring gifts to bring joy to everyone on your shopping list . . . hardware and housewares to make *this* Christmas a *lasting* Christmas. Look for the red, white and blue irha Symbol of Service and Satisfaction—*your guide to better buying!*

Published in the Interests of More than 22,000 Independent, Home Owned Hardware Stores Pledged to Service, Quality and Value.

A NATION WIDE ASSOCIATION OF RETAILERS PLEDGED TO SERVICE QUALITY VALUE
irha Independent HOME OWNED HARDWARE STORE

NATIONAL AND AFFILIATED RETAIL HARDWARE ASSOCIATIONS

How to trim hoofs

By Dr. J. W. Bailey

It's not surprising that the hoofs of cattle often become too long during the wintertime. While confined in the barn, animals have little chance to wear their toes down as they do during the pasture season. Bulls are often subject to the trouble because they are kept in pens with floors well covered by straw and manure.

Those long toenails are bad business, for they may easily break down into the sensitive "quick" and lead to infection. At other times they cause injury to muscles and tendons that results in serious lameness and other troubles. Constant pain may cause cows to decline in milk production and bulls may become so sore-footed they are unwilling to breed cows.

Foot trimming is generally neglected because it is a disagreeable job. When it involves an old bull weighing close to a ton, a certain amount of danger is also recognized. Methods of trimming vary in different parts of the country. Sometimes

[*Turn to page 62*

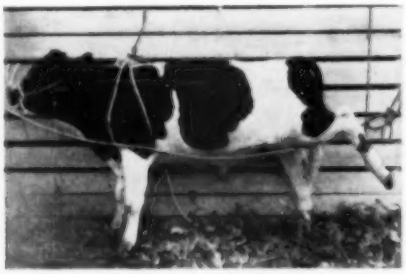
Photographs: Author

Long toenails, as shown above, are bad business. Toenails may break, causing animal to go lame

Long-handled hoof trimmers are best for trimming hoofs. Quiet animals can usually be held with a halter. Read article for how to hold nervous animals

The sole of the hoof may have to be trimmed. With small animals, lifting the foot by hand is easiest. Rope may have to be used to lift the feet of heavier animals

Hoof at left is a good example of how much of the animal's toenail should be trimmed



For raising front or hind foot, use the roping arrangement shown above. Rope around front leg lets animal rest weight on the rope while the hoof is being trimmed

Badly overgrown hind hoof is shown at right. Hoof at left has been cut to right length

Stop . . . look both ways . . . before backing or turning from your driveway onto a street or highway. ***A moment's pause may save your life.***

How much do reckless drivers add to <u>your</u> auto insurance bill?

WHY SHOULD careful drivers pay the same automobile insurance rates as reckless ones? They don't when they are insured with State Farm Mutual.

For State Farm aims to insure only careful drivers . . . then bases its rates on the driving experience of its own members, in each area.

Careful driving means fewer accidents . . . fewer claims . . . makes it possible for this great mutual company to offer top-quality insurance protection and service at a saving to members of millions of dollars a year.

If your own careful driving entitles you to State Farm's low-cost, "careful driver" insurance, it will pay you to see your State Farm agent. Look up "State Farm" in your classified phone book.

Other benefits of State Farm membership

1. *Semi-annual premium payments.* Wouldn't it be easier on your budget to pay for your automobile insurance in two small payments each year, rather than in one lump sum? Advanced State Farm billing and bookkeeping practices make this possible for State Farm members—at no increase in cost.
2. *Mutual benefits.* State Farm is a mutual company. Savings from low claim costs and high operating efficiency are passed on to members, who actually own the company, in the form of low insurance rates. On the other hand, State Farm policies are non-assessable. You never pay more than the established rate for any period.
3. *Fast, fair claim settlement.* More than 6,500 State Farm agents and claim representatives stand ready, day or night, to come to your aid in case of accident. State Farm cuts red tape—pays an average of one claim every 12 seconds, every working day.
4. *Established leadership.* State Farm now writes more full-coverage automobile insurance than any other company, with more than 2,300,000 members in the auto company alone. And new applications for State Farm insurance are coming in on an average of 2,000 every working day!

Look to State Farm for Life and Fire Insurance, too. See your agent!

State Farm Insurance Companies

State Farm Mutual Automobile Insurance Company
State Farm Life Insurance Company
State Farm Fire and Casualty Company

Home office: Bloomington, Illinois • *Branch offices:* Berkeley, California • St. Paul, Minnesota Lincoln, Nebraska • Marshall, Michigan • Dallas, Texas • Charlottesville, Virginia • Toronto, Ontario • Field claim offices in more than 250 principal cities.

Hear "Cecil Brown News Commentaries," Saturdays and Sundays over Mutual Broadcasting System stations.

Sure, there are other ways to heat your home, but—

You can't beat COAL FOR COMFORT!

When it comes to keeping your home comfortably warm, coal does the world's best job. That's true whether you have central heating or use room heaters—and here's why:

More even heat! A coal fire burns *steadily*—not the "all-on," "all-off" flames of other fuels. The glowing bed of coals spreads warmth evenly throughout the house. With a coal fire you have fewer "cold pockets," fewer drafts—it's the world's most comfortable, most healthful heat.

Greater economy—in most localities it costs less to heat a house with coal—up to ⅓ less than the cost of oil. For coal users that's money in the bank!

Dependability! Unlike other fuels, a full winter's coal supply can be stored safely—you never have to worry about a sudden snowstorm blocking roads, halting fuel deliveries.

3 WAYS TO GET EVEN MORE FROM COAL:

New stokers feed coal automatically...no coal handling for you! Get all the comfort of coal with the greatest possible economy and convenience.

Let a clock-controlled thermostat tend your furnace...it will open the drafts in the morning, close them for you at bedtime! You get truly automatic comfort!

Modern coal heaters need little attention...they burn all day and all night on a single filling of coal! You only have to light the fire once a year.

FOR COMFORT AND ECONOMY

YOU CAN COUNT ON COAL!

BITUMINOUS COAL INSTITUTE, A Department of National Coal Association, Washington, D. C.

How to trim hoofs

From page 60

animals are thrown with ropes and tied before feet are touched. At other times the animal is placed in a rack made especially for foot trimming.

The average farmer can do the job best by trimming feet while the animal stands. All the equipment you'll need is a couple of ¾-inch ropes and a pair of long-handled hoof trimmers.

Hoof trimming is best done with animals standing on a bare floor. Quiet animals may simply be held with the halter while the sides and ends of the feet are being clipped off. The job is no more painful than trimming your fingernails.

Nervous animals can be tied to a wall and held against it by a rope fastened at both ends and passed across the shoulder, along the side, and between the hind legs. The accessible parts of the feet may be trimmed and the animal then turned end for end to get at those that were formerly close against the wall.

No set rule can be given with regard to how much hoof can be safely removed, since animals aren't the same in this respect. To be on the safe side, you'd better take off only a little at a time while you're getting the foot down to proper proportions. The appearance of blood means that you've gone too deep and will have to stop. Sometimes only the outer edges of feet will need trimming, while at other times the soles may need work, too.

If the sole of the hoof needs trimming, the hoof can sometimes be lifted and held by one man while another levels off the bottom with either the hoof trimmers or a knife. However, cattle don't stand well on three legs and generally tire a man out by making him support part of their body weight while he's holding up a foot. Consequently it may be better to use a rope for raising feet.

In the case of a front foot, one end of a rope is passed between the forelegs and made into a loop that fits snugly around and in front of the shoulder. The rope is then carried up and fastened to the wall directly above so the body will be supported by it when the foot is brought off the ground. The free end of the rope can then be brought down and looped around the pastern to raise the foot. Once the foot is off the ground, it can be tied in proper position with the rope.

For raising a hind foot, one end of the rope is tied slightly below the hock and the other is passed up and slightly back of the animal. The foot can then be raised and tied at the desired height for work on the sole. Regardless of whether it's a front or hind foot, one man probably will have to hold the hoof in position while the bottom is being removed. Otherwise the foot will be pushed away when cutting is attempted with the knife or trimmers.

Done in time, hoof trimming may save you a lot of trouble and expense later on. It doesn't pay to forget those feet! **END**

Ask for G-E Motors and Control on all Electrified Farm Equipment you buy!

GENERAL ELECTRIC

FarmNews

Ask for G-E Motors and Control on all Electrified Farm Equipment you buy!

MORE POWER TO THE AMERICAN FARMER through more electricity on the farm

CROP DRIER BEATS WEATHER...SAVES GRAIN!

Heated-air drying lets farmers harvest early... lowers crop losses, brings in top market prices

Manager Williams adjusts back-draft damper to protect hens from incoming drafts.

VT. FARMERS FIND ELECTRIC VENTILATION PAYS OFF

Milk and egg yields are increased, farm building rot is checked

Keeping the air in barns and hen houses fresh and dry is important up in Vermont, especially during the long, hard winters. Here is how two farmers do it.

Healthier flocks, more eggs

Robert O. Williams, manager of Mrs. J. H. Huyck's poultry farm at Wells, Vt., keeps his 500 pullets and hens comfortable, and laying well, with two electric-powered ventilating fans.

Egg production is excellent since the two fans were installed, Mr. Williams notes. His hen house is cleaner-smelling, and he doesn't need to change the litter nearly as often. Further, he estimates that the hen house will need less repairs because structure-rotting moisture and ammonia are almost eliminated.

Power for the two fans is provided by G-E motors. Check "Poultry House Ventilators" on the coupon for more information.

Dairy herd produces more milk

"Some of the best money we ever spent," say Leland and Edward Congdon, Clarendon, Vermont, of the two-fan ventilating system they installed in their dairy barn.

Their 60 head of cows and calves stay healthier because humidity is kept low and sudden changes in temperature are eliminated. Milk production is increased because cows eat more and drink more.

Walls and floors in their 95-year-old barn stay dry. Rot, which was destroying the hay chutes has been checked.

Both of the ventilating fans are equipped with G-E motors for quiet, dependable operation. For more information, check "Electric Ventilator" on the coupon.

"Thanks to the drier, my income will increase by at least $1,500," reports Mr. Clare Backus of Route #1, Charlotte, Michigan, who recently leased a modern portable crop drier. "My first 800-bu. crib brought in $1,350. That was a premium price, because the corn was early and because the cob was bone-dry. I will get at least that much for the second 800-bu. I dried."

Saves half his corn crop

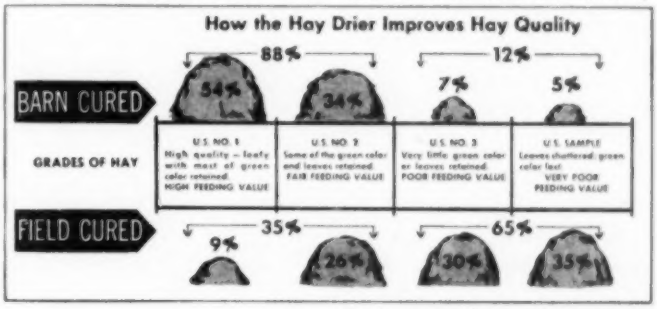
"By using the crop drier, I saved half my corn crop this year," continues Mr. Backus. "The second crib would have spoiled if I had waited for the old-fashioned natural air drying process. Despite damp weather, the drying process took less than 50 hours."

Mr. Backus saves other ways, too. He can start harvesting early, while moisture content is high. He can operate his combines more hours per day. He doesn't need to turn the grain to cool it. And there is no danger of the corn getting moldy if he wants to hold it on his farm until the market is more favorable.

Clare Backus adjusts valve on crop drier. Hot air is blown through corn, expelled through vent at top of crib.

Hay is improved, too. It stays green, leafy and fresh when it is dried by forced-air, and it keeps the natural sweet smell and flavor that always disappear after it has been long exposed to sun and weather.

To assure dependable, automatic drier operation, the manufacturer selected a 5-hp General Electric motor, and G-E controls. For more information, check "Crop Drier" on the coupon.



Barn haydrying with a crop drier improves hay quality by keeping it green and leafy.

Congdon points out how rot, which was destroying the hay chutes (photo at left) has been practically eliminated by moisture-reducing ventilating fans.

General Electric Company
Section 671-24E, Schenectady 5, N. Y.

I would like additional information on the following equipment.

- ☐ Crop Drier
- ☐ Dairy Barn Ventilator
- ☐ Poultry-House Ventilator
- ☐ How To Choose Your Motor

NAME _____

ADDRESS _____

CITY _____ STATE _____

Rationed Kisses?

maybe YOU are to blame!

A peck-on-the-cheek from a distant husband is a mighty poor substitute for the warmth a loving wife has a right to expect. But—*do* you have this right? Have you been really careful about personal daintiness, lately? It's a shame to let neglect spoil your married happiness . . . when effective help is available today, with "Lysol" in a simple douche. It couldn't be easier!

"Lysol" will not harm delicate tissues. This proved germicide, used in a douche, completely cleanses the vaginal canal—even in the presence of mucous matter. It kills germ life quickly, on contact. Yet, "Lysol" is designed for freedom from caustic or irritant action when used in feminine hygiene.

You need never again be guilty of offending—even unknowingly—if you remember that complete internal cleanliness is the way to counteract unpleasant odor. "Lysol" *does* this, helps keep you dainty!

Get "Lysol" today, at your drug counter. Use it in your douche. Be sure of yourself—and secure in your marriage!

Preferred 3 to 1

over any other liquid preparation for Feminine Hygiene

"Lysol" Brand Disinfectant

In 1952, after long scientific research, the formula for "Lysol" disinfectant has been improved by the replacement of most of its cresylic acid content with orthohydroxydiphenyl.

PRODUCT OF LEHN & FINK

Tips for toy shoppers

By Agnes Mueller

The right toy at the right age is a precious thing to find. For the Christmas spirit in a toy department is so contagious it sometimes sweeps us doting grownups off our feet. The unending array of new, wonderful, colorful toys leaves us dazzled.

This helpful guide will ease toy shopping. It is based on research of manufacturers, child specialists, and teachers.

For infants under 1 year:

Still in the hand-to-mouth stage, they must have simple, sturdy, durable toys.

Give: hard rubber rattles; large wooden beads, securely strung; rubber or plastic blocks; large stuffed dolls and animals; bathtub toys. A favorite is the cradle gym which can be attached to crib or playpen. It has a horizontal bar and a climbing rope strung with colorful balls. Baby can use it with perfect safety.

Avoid: small balls or marbles, toys with sharp corners or injurious finishes, unfinished toys that may splinter when put into the mouth, and toys made of thin plastic or tin which may be bitten into.

For infants from 1 to 2:

In the crawling and toddling stage, these youngsters like to feel independent, although they sometimes need toys to give them support.

Give: soft cuddly animals; nested boxes; push-and-pull toys; baskets and boxes to load and unload; a small chair to carry around; a sturdily built little wagon; plastic dishes; a rocking horse.

Avoid: small toys which may be swallowed or are inflammable or easily splintered; toys with small, movable parts; windup toys.

Ages 2 to 4:

At this age, the child becomes an explorer. He grows increasingly aware of his world. He runs, pulls, climbs, and pounds, and enjoys toys which he can push, pull, pile up, or knock down.

Give: wooden animals; a sandbox with basket, shovel, and spoon; cars and wagons to push about; transcontinental-train sets (one kind has six wooden coaches which are self-locking); tipproof kiddie-cars; tricycles; large crayons; a low rocking horse; wheelbarrow; wooden rake; swing; wading pool; block-craft to build plows, tractors, and bridges; plastic dishes; simple doll clothes and dolls to dress, undress, and feed; toy telephones; finger paints, blunt scissors; modeling clay; records for listening, dancing, and singing; toy musical instruments.

Avoid: anything with sharp or rough edges; objects with small movable parts; marbles; beads; anything inflammable.

Ages 4 to 6:

• Four marks the beginning of creativity, and "let's pretend" is strong. Children like to pretend they're anyone they may have observed closely—firemen, policemen, store clerks, Mother, the doctor.

Give: artist set with washable canvas and nontoxic water colors; blackboard and dustless chalk; simple construction sets; small sports equipment; modeling clay; large wooden jigsaw sets; outdoor swing set; dump trucks; stilts; scooters; pedal cars; dress-up costumes; model cars; dollhouse; boats; fire engine; unbreakable dishes; plastic food models; toy stores.

Avoid: shooting or target toys which may endanger eyes; ill-balanced mobile toys; pinching or cutting objects; gauzy dress-up costumes which catch fire easily; toys too heavy for the child's strength.

Ages 6 to 8:

At 6 and school age, boys and girls become absorbed in group play. They begin to differ in their interests and play with their own sex a greater share of the time.

Give: *boys from 6 to 8:* basketball and football outfits; gym equipment; metal construction sets; woodburning, carpentry sets; electric trains; cowboy, Indian, armed forces, space-pilot costumes.

Girls from 6 to 8: cooking utensils and other realistic housekeeping toys; dress-up costumes; jewelrymaking sets; skipping ropes; dolls with hair that can be curled, waved, or dyed; paper dolls.

For both: wheel toys; storybooks; games (parcheesi, dominoes, number and spelling games, puzzles); children's records; toy musical instruments; ice skates; table tennis; croquet sets; hand puppets.

Ages 8 to 10:

Although these youngsters are busy learning to adjust to their own social environment, they have moments when they like to be alone and work with hobbies.

Give: *boys from 8 to 10:* advanced craft and construction sets; basketball, football, and baseball equipment.

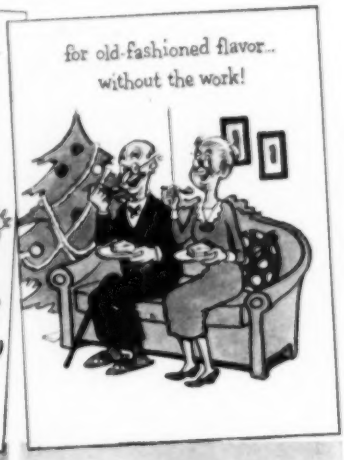
Girls from 8 to 10: linoleum-block printing sets; dressmaking and designing sets; realistic dolls; marionettes; beadcraft; leathercraft; sewing sets, a toy sewing machine; looms; realistic doll furniture.

For both: camera; typewriter; children's fiction, books about travel, history, and biography; quality paints, drawing material; roller skates; skis; clubhouse. **END**

Yours—for a Merry Christmas

Oh! The WONDERFUL things

Jell-O Puddings and Pie Fillings can do...



Who wants to spend Christmas in a kitchen? Not you! And there's no need!

Take this luscious coconut cream pie, for instance. You can cook the filling in about 5 minutes with the new Jell-O **Coconut** Cream Pudding and Pie Filling. The coconut is right in the mix! And with a Coconut Crust (see Baker's Coconut package for directions) will your family love it? You can count on it!

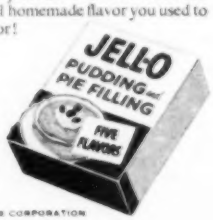
What's your family's favorite flavor? We'll bet chocolate . . . and probably win!

With Jell-O **Chocolate** Pudding and Pie Filling you can have a handsome, chocolate whipped cream pie in a Coconut Crust. And you won't spend hours making it! What flavor, too! Rich, dark and chocolaty—made from an exclusive blend of world-famous Walter Baker chocolate—best there is!

Remember when a lemon meringue pie meant hours of hard work . . . and heaps of pots to wash up? That was way back before Jell-O **Lemon** Pudding and Pie Filling!

Now you don't even need a double-boiler . . . and it takes you approximately 15 minutes! And you just can't beat the fresh-lemon flavor...real homemade flavor you used to labor hours for!

JELL-O Puddings & Pie Fillings



NOW 5 FLAVORS—VANILLA, CHOCOLATE, BUTTERSCOTCH, LEMON, COCONUT CREAM

JELL-O IS A REGISTERED TRADE MARK OF GENERAL FOODS CORPORATION

Cookies for your tree

The gaily decorated Christmas cookies hanging on the tree on page 43 are a specialty made by Mrs. Lawrence Lauderbaugh, who lives near Flint, Michigan. We want to share her cookies with you

Painting with frosting: Beat 1 egg white with 2 cups confectioners' sugar. Divide frosting into as many parts as you need colors. Put in custard cups. Thin each portion with water to get desired consistency. Then mix in a few drops food coloring until you get the shades you want.

Now, using small clean paintbrushes of varying sizes—one for each color—start painting. Let each color dry before starting on the next, so colors won't run. (Don't use milk to thin the frosting—it makes it less creamy. Keep frosting covered when not in use.)

Painting with sugar: Pour granulated sugar on waxed paper. Mix in few drops food coloring with a fork (above) till color is even and lumps work out. Then beat egg white slightly and blend in few drops of food coloring; paint on with brush. Sprinkle with same color sugar (left). Let each color dry before adding next.

More on page 68

Clean and Sweeten your refrigerator with Baking Soda

Costs less than ½¢ a week

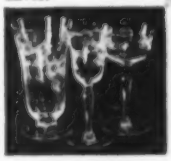
No scrubbing! No scouring! Takes ½ the time!

Baking soda emulsifies greasy film that mold and germs cling to. Film disappears—and so do musty, sour food odors. There's no soapy or "strong" odor left to cling to food, no suds or grit to rinse away.

You just sprinkle soda on a damp cloth and wipe the inner surfaces of your refrigerator. Wash trays and racks in a soda solution. Baking soda is the cleanser recommended by 22 leading refrigerator manufacturers.

Better Coffee

Rinse glass coffee makers with a soda solution (3 tbs. soda to a quart of water) to get rid of filmy coffee oils that impair flavor.



Glasses Sparkle

Etched crystal or cut glass sparkles if you apply a thin baking-soda paste with a soft brush and rinse well, rub dry.

Arm & Hammer and Cow Brand Baking Soda are pure bicarbonate of soda—meet all requirements of U. S. Pharmacopoeia.

FREE! Booklet—"The Know-How Family"—shows many ways soda helps in your home. Write Church & Dwight Co., Inc., 70 Pine St., New York 5, N. Y.

He'll get more than fun out of this!

Give your child a future for Christmas

The Christmas joy you can bring your children with a new Wurlitzer Piano will never fade.

A child's first thrill in a new piano can become greater with each passing Christmas . . . as piano training builds personality . . . as accomplishment leads to self-assurance, personal progress and popularity.

You will be impressed by Wurlitzer's full rich tone, beautiful furniture design, durability and mechanical excellence.

A Wurlitzer Piano is easy to own. *More people buy Wurlitzer Pianos than those of any other name.*

A Wurlitzer Piano will make all his Christmases merry

Wurlitzer Piano Model 456. Mahogany or walnut. Like all Wurlitzer Pianos, it may be bought on convenient terms.

Wurlitzer Home Organs are low priced . . . and easy to play! Wurlitzer is famous for the finest in electronic organs for both home and church.

WURLITZER

World's largest Builder of Pianos and Organs
Under One Great Name

THE RUDOLPH WURLITZER COMPANY, DE KALB, ILLINOIS

Cookies for your tree

From page 67

When you add decorettes or small multicolored candies, be sure the frosting on the cookies is dry. Then, using fresh frosting, outline the areas you want decorated. Sprinkle the decorettes over the fresh frosting; shake off excess.

Hanging on tree: If cookies are cellophane-wrapped, they are edible as well as decorative. Wrap them carefully in cellophane and fasten at back with cellulose tape. Staple gay ribbons to top of cellophane wrapping; tie on tree.

Sugar Cookies

Makes about 5½ dozen 2½-inch cookies

Cream together:
- **1 cup shortening**
- **1½ cups sugar**

Add
- **2 eggs**
- **1 teaspoon vanilla**

Blend well.

Sift together:
- **1 teaspoon salt**
- **1 teaspoon soda**
- **4½ cups sifted flour**

Stir into shortening mixture.
Chill for several hours.
Roll out on lightly floured board.
Cut into Christmas shapes with cooky cutters.
Bake at 350° (moderate) until lightly browned.
Cool on rack.
Decorate, following pictures, directions.
Wrap in cellophane.
Staple ribbons to top of cellophane wrapping; tie on tree.

See one of these stores for home planning help

Get FREE help in planning your home decorating, building, and remodeling in any of these stores cooperating with the *Successful Farming* Home Planning Service:

Illinois

*Bloomington	Livingston's
Champaign	Robeson's, Inc.
Decatur	Block & Kuhl Co.
*Springfield	John Bressmer Co.

Indiana

*Indianapolis	L. S. Ayres
*South Bend	Robertson Bros.

Iowa

*Cedar Rapids	Smulekoff's
*Davenport	Petersen-Harned-Von Maur
*Des Moines	Younkers
Fairfield	Bradshaw's
Marshalltown	The McGregor Co.
Oskaloosa	The McGregor Co.
*Sioux City	T. S. Martin Co.

Kansas

*Wichita	Hinkel's

Michigan

*Lansing	J. W. Knapp Co.

Minnesota

Mankato	Landkamer Bros. Co.
*Minneapolis	L. S. Donaldson Co.
*St. Paul	Schuneman's

Missouri

*Kansas City	Mehornay's
*St. Louis	Stix, Baer & Fuller
*Springfield	Heer's, Inc.

Nebraska

*Lincoln	Gold & Company
Norfolk	Ballantyne's
*Omaha	Orchard & Wilhelm

New York

*Albany	W. M. Whitney & Co.
*Rochester	McCurdy's
Watertown	Household Merit

Ohio

Ashtabula	Carlisle-Allen Co.
*Columbus	F. & R. Lazarus
*Dayton	The Rike-Kumler Co.
Mansfield	The M. O'Neil Co.
*Springfield	People's Outfitting Co.

Oklahoma

Broken Arrow	Dickason-Goodman
*Enid	Long-Bell Lbr. Co.
Red Fork	Dickason-Goodman
*Tulsa	Dickason-Goodman

Pennsylvania

*Pittsburgh	Joseph Horne Co.

South Dakota

Huron	Fullerton's

Wisconsin

Manitowoc	Boston Store
*Milwaukee	Gimbels

**Stores with home planning specialists.*

LENNOX "FLOATING" BLOWER
moves air gently, quietly

There is no "blast" or "rush of air" when your Lennox Blower forces the filtered, fresh warm air through your house. No other furnace blower assembly has accomplished as perfect sound isolation as has this exclusive Lennox design.

The Lennox Blower "floats" on rubber so that all vibration is absorbed. Here is the most quiet blower ever built into a warm air furnace.

You can always depend on Lennox for the best. That's why . . .

in warm air heating

more families buy Lennox

than any other make

Ask about Convenient Payment Plan

Relax in the perfect comfort of Lennox Aire-Flo-Heating whenever you want to!

Here's absolute freedom from furnace-tending! The perfectly balanced warmth . . . gently circulating, filtered, clean air throughout your home . . . quiet, automatic operation . . . fuel-saving efficiency, add up to perfect comfort for you and your family for years to come. That's why more families buy Lennox!

Luxurious, healthful, warm air conditioning . . . in a neat package . . . is yours to enjoy: the result of more than 50 years of Lennox leadership.

Find out what long-time Lennox owners have known for years: NOTHING can compare with a Lennox for real comfort, dependability or fuel savings.

Ask your Certified Lennox Dealer, your community's most competent heating authority, why this is so. Call him . . . his name is in your classified phone book, or write nearest Lennox office, Dept. SF-1252, for FREE, factual, illustrated booklet: "How to Select Your Heating System"

THE LENNOX FURNACE COMPANY
World's Largest Manufacturers and Engineers of Warm Air Heating Systems

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Lennox Furnaces carry the seals of nationally recognized testing laboratories.

There's a Lennox Heating System for your home and climate . . . 82 different models . . . for gas, oil, coal, LP gas

LENNOX *Aire-Flo® Heating*

No Other Work Shoes In The World At Any Price Like

WOLVERINE

SHELL HORSEHIDE WORK SHOES

IT'S REALLY TRUE OF *Wolverine Shell Horsehides*—not just Work Shoes for Sale—but *Comfort for Sale* at your friendly Wolverine dealer's. Yes, *Wolverine Shell Horsehides* are just that soft and pliable—even dry soft after soaking. Just the same—money can't buy work shoes that give you more months and miles of wear for every dime of cost. The explanation is simple. Only Wolverine Tanners know the secret triple-tanning process that tans in all the natural shell horsehide toughness and, at the same time, makes it buckskin-soft and pliable. Why not enjoy that generous Wolverine bonus of extra comfort in every pair. Ask your dealer for genuine *Wolverine Shell Horsehides*.

WOLVERINE SHOE & TANNING CORPORATION
ROCKFORD, MICHIGAN

WOLVERINE LEATHER LACES
They're yours 100% **FREE** of cost! Just hand coupon below to your Wolverine dealer when you inspect or try on a pair of *Wolverine Shell Horsehides*. Then he'll see that you get a pair of tough 36" *Indian Tan Laces* at no cost whatsoever.

TO ALL WOLVERINE DEALERS: Dept. UC-12
Bearer is entitled to a pair of 36" Indian Tan Leather Laces after inspecting or trying on Wolverine Shell Horsehides.

Name _____
Address _____
Town _____ State _____
Dealer's Name _____

Warm water in winter

From page 31

The only difference between the two groups was the method of watering. The group that gained more received water from an automatic waterer. The other group had access to an ordinary trough, and although watered twice per day, didn't get enough to drink. The water was frozen over most of the time.

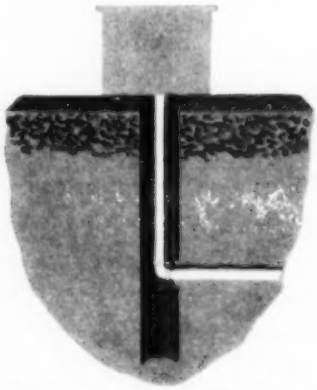
During the remainder of the 11-week test—when temperatures were mild enough to prevent freezing—both groups of pigs gained at the same rate.

The amount of fuel your waterer uses depends upon several factors. First, you should have a thermostatic control so the water temperature doesn't rise much above 35 degrees. At this temperature, the waterer will use the least amount of fuel—whether it be oil, gas, or electricity. Of course, you can adjust your manually operated heat unit several times per day and save fuel. But it's more labor and you end up making special trips. It's mighty nice having a silent watchman—a thermostat—to handle the heat.

There are other cost factors, too. To cut down fuel expense, try to put the waterer in a sheltered location.

Then, consider the usefulness of the location. For instance, you may be able to double the usefulness of many types of waterers by locating them in a fence line between two lots or pens.

One thing you'll want to watch is not to set the thermostat too high. Heating water for livestock beyond the 35-degree point has very little effect on production. Tests conducted at Iowa State College proved this point. In the tests, hogs having a continuously available supply of water at an average temperature of 55 degrees did not gain more than the hogs having access to water at 45 degrees. Going even further, the hogs receiving 55-degree water didn't gain more than hogs drinking from hand-watered troughs when the temperature was mild enough to prevent freezing.



Installation is important. Tile—6- to 10-inch—runs below frostline, allows ground heat to "help" heater. Concrete platform is 4 inches thick over 10-inch gravel fill

1½-ton 12-foot stake—also available on 2-ton chassis

STURDY STUDEBAKERS HAVE BEEN HAULING AMERICA'S FARM LOADS FOR OVER 100 YEARS

Profit-minded farmers proudly own a big percentage of the hundreds of thousands of Studebaker trucks in use from coast to coast. Save gas and cut upkeep costs with a Studebaker truck of your own. Stop in at any Studebaker dealer's.

Good-looking exterior design makes you proud to own a Studebaker truck. Your choice of streamlined ½ ton, ¾ ton and 1 ton pick-ups and stakes or handsome, powerful, extra rugged 1½ and 2 ton models.

Roomy cab is weather-tight—and Studebaker's marvelous Truck Climatizer, available at extra cost, keeps you snugly warm, defrosts windshield and windows. Steering post gearshift on light duty models.

Cab steps are fully enclosed so that slippery muck, snow and ice won't endanger you. Wide doors have automatic "hold-open" stops and tight-gripping rotary latches. Big-visibility windshield and windows.

Father-and-son teams and other painstaking craftsmen build wear-resisting soundness into Studebaker trucks. You get the benefit of over 100 years of Studebaker experience.

Studebaker, South Bend 27, Ind., U. S. A.

BEWARE
of this tank destroyer...

Look out for "Ruthless Rust." He wrecks thousands of water heaters every year.

On the farm you can see, every day, how rust ruins implements, tanks, and tools.

BE SAFE with an A.O. Smith Permaglas®
AUTOMATIC WATER HEATER

Be sure you get the *one* water heater that defeats all attacks by "Ruthless Rust." Buy an A. O. Smith *Permaglas* automatic water heater with glass-surfaced steel tank that can't rust because *glass can't rust.*

The *Permaglas* automatic water heater is the finest water heater you can buy for long service, economical operation and for all the clean hot water you need . . . as *fast* as you need it . . . for all farm and household requirements.

COSTS NO MORE
than ordinary water heaters

Permaglas automatic water heaters are available in Gas, Electric, and LP-Gas models in sizes from 20- to 80-gallons. UL and AGA approved.

The only water heater with Four B.I. protection.

Four Basic Improvements provided by A. O. Smith:

1. Glass-surfaced steel tank can't rust because *glass can't rust!*
2. Absence of dissimilar metals inside tank!
3. Interior tank fittings shielded from electrolytic action, the cause of all corrosion!
4. "Neutrolizer"...the anti-corrosion stand-by protector!

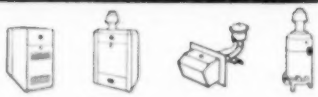
For free copy of "MURDER IN THE TANK" illustrated booklet, write A. O. Smith Corporation, Dept. SF-1252, Permaglas-Heating Division, Kankakee, Illinois. *International Division: Milwaukee 1. Licensee in Canada: John Inglis Co., Ltd.*

Permaglas
DAIRY WATER HEATER

The ideal portable electric dairy water heater! Just plug it in . . . and forget it. When you want hot water, pour in cold water at the top. This forces hot water out through the side spout. Glass-surfaced steel tank can't rust because *glass can't rust!*

Manufacturers also of: A. O. Smith Gas fired home heating boilers, warm air furnaces, gas conversion burners, LP-Gas systems and carburetion adapters.

A.O.Smith
PERMAGLAS-HEATING PRODUCTS



Look what he did on $25 land!

From page 37

Mrs. Oden and I bought our first 80 acres. We paid $25 an acre for it and borrowed the $200 for the down payment.

"Brother, this white-oak soil of southeastern Iowa was poor—you could have seen a table-tennis ball anywhere in the pasture at 40 rods. *We didn't want to buy land that poor. It was a case of having to.*

"But I had it figured out this way—once, this land produced good crops. Now it was like an overdrawn bank account. If I put the things back in that had been taken out, it should produce again. I hauled manure 7 miles in a wagon and spread it by hand 'on grass' and the grass grew—and our milk checks grew!

"I was feeding more animals on fewer acres of grass. But, the disadvantage was, my hay and pasture production was getting ahead of corn and oats.

"I had beef cows, which took a lot of this forage, but milk cows and hogs are what get little fellows like me ahead—milk cows to pay the operating expenses and hogs for mortgage lifting and necessary machinery.

"I had to have more corn! Would this land grow corn now? Could I clip a coupon on my investment in legumes, manure, and lime? But if I used some of the home 80 for corn I had to get some outside grass.

"In 1941 I bought another 40 acres adjoining me on the south for $25 an acre and put part of the home 80 in corn. That corn yielded about 40 bushels per acre. Some of my friends on better land had corn that yielded 60 bushels. I was growing more forage per acre on my land than they were on *good* land—why couldn't I grow corn once in five years which was at least equal to the yields they got? It was seven years before I found that I could get those top yields by a heavy application of starter fertilizer at planting time."

"I noticed that where I overlapped, legumes were better."

Oden was raising more hay and grain. His labor situation was easing as his two boys grew older. He was culling and replacing poor producers with high producers which increased his milk output by almost 50 percent. His beef herd was increasing at a rate which more than kept up with his hay and pasture. He was buying hay again. It was at this time that he began his heavy use of commercial fertilizer on meadows. He tells how it happened.

"I started by applying the amounts recommended (about 100 to 125 pounds of 0-20-0 at that time). I noticed that where I overlapped, legumes were better, so I doubled the regular application the next year. I have gone as high as 500 pounds per acre and still figure I had a good return on my investment." More milk, more beef, more forage, and more corn with little need for outside labor!

"I figure I have four times as much by owning the land."

Interlaced through Oden's whole operation has been a keen sense of money management. He seldom had free money; he kept it tied up in livestock and in land. He planned ahead. He says, "If I borrowed money or had a payment to make at a given time, I would breed sows so the pigs would be ready to sell about the time it was due."

Greater production with the same amount of labor did not stop with the 120 acres of land he then owned. He was still renting a large acreage. He reasoned: "I keep only half the crop on rented land, but if I own it and use a good rotation and fertilizer, I will double the yield. Therefore, I have four times as much by owning the land." He purchased 40 acres in 1944 and 80 acres in 1946; in 1949 he acquired 120 acres more and in 1952 he purchased another 80. For some of this he paid $25 an acre and less.

On much of this acreage Wendell had to start literally from scratch. Buckbrush, scrub oak, and poverty grass spelled a big investment to get into production. His theory there has been not to do it all at once. Taking a field at a time, he has cut and grubbed by hand, fertilized, and reseeded. Occasionally he has hired a bulldozer. Each time he gained a few more acres of productive pasture and cropland.

"Get yo'self a fertilizer attachment fo' your cawn planter."

Oden credits a gentleman from West Virginia with telling him how to boost his corn yields. "Suh, if you can grow alfalfa you can grow cawn. You go home and get yo'self a fertilizer attachment fo' your cawn planter and po'r the fertilizer to yo'r cawn and you will grow good cawn." That was 1948. Wendell tried it and the result is that now he expects 70 to 80 bushels of corn per acre and hopes to average 100 someday.

Once a tenant who owed more than he owned, Wendell has come far. How did he do it? Wendell does not consider himself "self-made." He is the first to say, "I've had a lot of help from everybody. The county agents have always done their best to answer my questions. And the boys with the S.C.S. have spent a lot of time working right here on the farm, and that first loan sure helped out." **END**

SUCCESSFUL FARMING

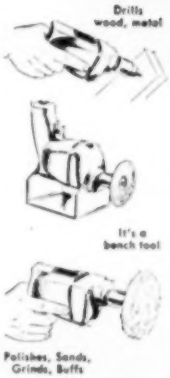
Cummins PORTABLE FARM WORKSHOP

Pre-Christmas Coupon Offer

$38.70 Value
Over 40 Pieces
ONLY $29.95

LOOK AT THE VALUE!

Only Cummins gives you over 40 pieces under $30!



Save almost $9—and give the gift that does almost everything! It's Cummins all-new 5804 Fixmaster Kit—the really complete portable farm workshop that's carried to the job to fix things the quick, easy way. And look at the value—it gives you over 40 pieces including Cummins newest model $21.95 drill plus $16.75 worth of accessories—a special $38.70 Christmas gift value! But don't wait—bring this ad with coupon to your Hardware or Implement dealer now for advance redemption!

The Fixmaster Kit is powered with Cummins man-size Model 38 Perm-Align pistol grip drill with the latest exclusive Perm-Align gearing that can't accidentally be knocked out of line. Handles ¼-in. drills in metal, ½-in. in wood.

Includes set of carbon steel twist drills, big supply of sanding discs, grinding wheel, wire brush, buffing wheel, lamb's wool polishing bonnet, paint mixer, bench stand, steel carrying case—over 40 pieces in all, under $30!

Be sure to see your dealer today—Fixmaster Kits are so new he may not have his yet—but he can get you one overnight from his jobber.

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Reservation Coupon... Bring to your Hardware or Implement Dealer

TO HARDWARE OR IMPLEMENT DEALER:
I want this newest Cummins No. 5804 Fixmaster Kit value described in this ad—a special $38.70 Christmas gift value. If you do not have it in stock, please order one for me from your jobber at only $29.95.

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NOW YOU CAN SAVE ALL YOU GROW!

NO LONGER do you need to watch a bountiful harvest dwindle in value month by month due to mold, shrinkage, rodent losses, etc.

NO LONGER will you need sell your crop on a low market because of high moisture content.

NO LONGER need you worry about how well your crops are carrying through the winter months.

INVESTIGATE MARTIN CROP-CONDITIONING METHODS NOW!

FOR GRASS: The Martin Haymaker enables you to cut and store your hay free from weather worries. Capture the high food value of fresh pasture by conditioning your hay in the Martin Haymaker. Let the Haymaker perform nature's job of removing the moisture from the hay where it is safe from the weather elements. You can save in feeding time, too, by letting the cattle feed themselves. Then round out your grass feeding program by making the finest quality grass silage in the Martin Silo—the most rugged silo built.

FOR CORN: You can pick your corn early, regardless of moisture content, and store it in the Martin High Round Crib with assured safety. Soft corn losses, field losses and damage, down grading—all can be eliminated by curing your ear corn in the Martin High Round Crib. Early picking allows discing under stubble to effect corn borer control—permits preparing soil for fall planting.

FOR SMALL GRAINS: Shelled corn, soybeans, wheat, oats, barley, rice, grain sorghums—all can be dried and safely stored in the Martin Conditioning Bin. You can fully protect your investment and get the highest prices for your crop by conditioning and storing it in a Martin Bin.

Write or Mail Coupon For Full Facts! ACT NOW

Please send me FREE literature on Martin

- ☐ Haymaker
- ☐ Silo
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SF11

For friendly help with your building, furnishing or decorating problems, visit the store nearest you offering **Successful Farming's** home planning service. Stores are listed on page 69.

KILL Power Failures

Protect your farm and home NOW with this low-cost stand-by generator that operates from tractor belt or gas engine. Complete with water-proof safety switch. Why wait until your lights go out, stoker, refrigerator, water, radio stops—then it's TOO LATE. Write today for full details.

WRITE FOR FREE FOLDER TODAY!

WIND POWER
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ONE-MAN SAWMILL LOW AS $50.00 DOWN

Take BELSAW Portable Sawmill right to the trees—turn out valuable lumber for local yards—do "custom sawing" for neighbors. BELSAW lasts a lifetime. No crew needed. Power with old auto engine. Beginners get excellent results. Send postcard for Free Book, 'How to Make Lumber.'

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PAINT RIGHT THE FIRST TIME

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Aluminum Company of America
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Protecting lumber against termites

Timbers used for construction purposes can be protected from termite attack by impregnating them with an approved chemical wood preservative. Considerable protection can be had by dipping the wood in a 5-percent solution of pentachlorophenol (penta) in a light petroleum oil for 3 minutes, the U.S.D.A. points out. Another, although less reliable, method consists of brushing the surface of wood with this solution, using three coats.

Several coats of heavy paint applied to exterior woodwork will give some protection. All cracks, crevices, and joints between timbers should be filled with putty or wood plastic prior to painting, to keep termites out.

Termites already in the wood can be killed, if the wood is movable, by placing it in a chamber heated to 150 degrees for 90 minutes or 140 degrees for 4 hours. Insecticides such as trichlorobenzene, which is volatile and kills termites as it vaporizes, also are effective. Fumigation is effective, but since the gases used are deadly, the work should be conducted only by a licensed operator.

Elevator eases broiler feeding

A homemade elevator saves a lot of time and energy carrying grain to the second- and third-floor broiler pens for Cornelius Leenhouts, Williamson, New York.

The grain is dumped, 100 pounds at a time, into a wooden, V-shaped hopper on the first floor. A combine chain with cups on it picks up the grain through an opening in the side of the hopper and elevates it, at a slight angle, 25 feet to the top of the barn. At the top of the elevator the cups empty the grain into a 5-inch stovepipe which directs it into a storage bin. When this bin is filled, a damper in the pipe is moved so that the grain flows through another pipe into the storage bin on the second floor.

Leenhouts has found that with his new elevator he can fill the second- and third-floor bins at the rate of 100 pounds in slightly more than 1 minute. The elevator is operated by a $\frac{1}{2}$-hp motor.

The total cost for the feed elevator was around $175.

"DAIRYMEN'S NUMBER ONE PROBLEM LICKED BY NUMBER ONE PRODUCT FOR MASTITIS CONTROL"

TRIBIOTIC WORKS WHERE OTHERS FAIL!

GROVEPORT, OHIO—Raymond F. Miller and two sons, Ray, Jr. and Neil, work their 450 acre dairy farm here together as a family enterprise. They run about 450 head of registered Holsteins, an operation that keeps the three Millers on their toes. Raymond Senior says he has used the Wyeth line of mastitis control products exclusively, with excellent results.

Recently Mr. Miller said, "When I get a tough case I use Tribiotic Ointment. Some months ago we had a severe case of mastitis that refused to respond to all the usual treatments. We were about to sell this cow, when I first heard about Tribiotic and decided to give it a try.

"It took just three treatments to get rid of all signs of mastitis. There have been no signs of recurrence of the infection and this cow's production continues to be as high as it was before mastitis set in.

"Usually," Mr. Miller continued, "we seldom need more than one tube of Tribiotic to successfully treat mastitis . . . and that means real economy in the long run. One tip I'd like to pass along . . . be sure you work the ointment gently up into the udder from the teat in order to get good distribution throughout the infected quarter.

"Tribiotic," Mr. Miller says, "is certainly the number one product for the dairyman's number one problem. Tribiotic is easy to use and easy to keep on hand. It is certainly more than worth every penny it costs!"

TRIBIOTIC*

OINTMENT

Penicillin • Dihydrostreptomycin • Bacitracin

- Three powerful antibiotics are combined in Tribiotic to provide intensified action—more powerful in combination than when these antibiotics are given singly.

- **Kills more susceptible organisms faster.**
- **Destroys more different types of bacteria.**
- **Harmless to animal. Less production time lost.**
- **Economical because fewer tubes needed.**
- **More powerful than any single antibiotic.**

Supplied in Wyeth's famous one-pinch, single-dose tube containing 100,000 units penicillin with equivalent of 50 mg. dihydrostreptomycin base and 5,000 units bacitracin.

*Trademark

CONSULT YOUR VETERINARIAN AS YOU WOULD YOUR PHYSICIAN

WYETH Incorporated
Philadelphia 2, Pa.

Wyeth®

TRIBIOTIC is available in Canada as TRIOVET* from John Wyeth & Brother, Ltd., Walkerville, Ontario.

Now! New Improved VEL* CLEANS MILKING EQUIPMENT

Cleaner... Faster... Easier!

HIGH QUALITY MILK DEMANDS CLEAN EQUIPMENT

Really clean milking equipment lessens the danger of refusal at the milk processing plant—gives you higher profits. New, improved Vel does an excellent cleaning job, no matter how hard the water. New Vel is not a soap. Vel is a soapless suds recommended by many leading agricultural schools and milking equipment manufacturers.

•

*VEL is the trade-mark of the Colgate-Palmolive-Peet Co.

BUY ECONOMY SIZE VEL FROM YOUR GROCERY DEALER

Santa is in the kitchen

From page 42

That's why we think you'll especially like the idea of letting your kitchen have a part in the holiday festivities this year. Any woman who prides herself on being a good cook can make as artistic gifts with flour and sugar as any artist. We're willing to bet you'll get more satisfaction taking a friend a beautifully decorated Christmas pie than the most expensive gift in the shops. You made it yourself, it's an expression of your personality, and it says, "I cared enough to take some time."

Give your children the same wonderful memories that you cherish. Let them have a corner of the kitchen for making popcorn balls, pulling taffy, and decorating cookies. They'll love helping Mom and Christmas will seem, once more, like a family affair.

Christmas Stollen (Makes 6 to 8 loaves)

Give these gaily decorated miniature loaves with a jar of homemade jelly—

- 1 cup lukewarm milk
- ½ cup sugar
- 1 teaspoon salt
- 2 cakes crumbled compressed yeast
- 2 eggs
- ½ cup melted shortening
- 4½ to 5 cups sifted flour
- ¼ cup chopped citron
- ¼ cup chopped candied cherries
- ½ cup chopped blanched almonds
- 1 cup confectioners' sugar
- 1 tablespoon warm milk

Combine milk, sugar, and salt. Add crumbled yeast; stir till dissolved. Add slightly beaten eggs and shortening. Stir in flour. Turn onto lightly floured board and knead till smooth and elastic. Place in greased bowl; lightly grease top of dough. Cover with a damp cloth; let rise in a warm place till doubled in bulk. Punch down and turn over in bowl; let rise again till almost doubled. Turn dough onto lightly floured board and flatten. Knead citron, cherries, and almonds into dough. Shape into small loaves and place in 4½x2¾x2-inch pans; dough should come ⅔ of the way up on pans. Let rise till it comes to top of pans. Bake in moderate (375°) oven for about 20 to 25 minutes. Combine confectioners' sugar and milk; frost bread. Decorate with blanched almonds, citron, and candied cherries.

Jam Surprises (Makes 4 to 6 dozen)

Easy as pie to make and decorate—

- 1 cup shortening
- ⅔ cup sugar
- 1 egg
- 2½ cups sifted flour
- ½ teaspoon baking powder
- Dash of salt
- Raspberry jam

Cream together shortening and sugar. Add egg and mix well. Sift together and add dry ingredients. Blend well. Force through cooky press in various shapes. Squeeze jam through waxed-paper cone to decorate. Place on ungreased baking sheet. Bake in hot (400°) oven for 8 to 10 minutes.

Festive Plum Pudding (Makes 6)

Decorate right in the mold, wrap in cellophane, and add a perky bow—

2 cups chopped suet	1 cup cold water
1 cup chopped apple	3 cups sifted flour
2 cups seedless raisins	½ teaspoon salt
1 cup currants	1 teaspoon soda
1 cup light molasses	2 teaspoons cinnamon
	½ teaspoon cloves
	½ teaspoon allspice

Combine suet, fruit, molasses, and water. Add sifted dry ingredients and mix well. Fill greased molds ⅔ full (use ¾-cup molds filled with ½ cup pudding mixture). Cover tightly with aluminum foil. Steam for 3 hours on rack in covered container, using a small amount of boiling water. Decorate with thin gumdrop slices and candied cherries. Serve hot with Hard Sauce.

Hard Sauce

½ cup butter	1 teaspoon vanilla
2 cups confectioners' sugar	

Thoroughly cream together butter and sugar. Add vanilla; mix well. Vary the flavor by adding a small amount of lemon juice and grated peel.

Cranberry Chiffon Pie

Dash this pie over to a friend when she is fixing a big meal. A grand surprise—

1 envelope unflavored gelatine	1 teaspoon lemon peel
¼ cup cold water	2 teaspoons lemon juice
1 pound can whole-cranberry sauce	2 egg whites
⅛ teaspoon salt	2 tablespoons sugar
	8-inch baked pastry shell

Soften gelatine in cold water. Dissolve over hot water. Blend with cranberry sauce, salt, lemon peel, and juice. Chill until slightly thickened. Beat egg whites till soft peaks form. Gradually add sugar. Beat to form stiff peaks. Fold egg-white mixture into cranberry mixture. Pour into cooled baked shell. Chill till firm. Top with whipped-cream swirls before serving.

Holiday Pecan Crisps (Makes 2 dozen)

Fill a cooky jar with these cookies and give it to a favorite youngster—

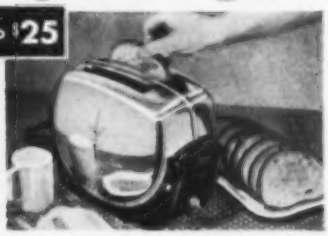
½ cup butter	¾ cup finely chopped pecans
½ cup sugar	1 cup sifted flour
¼ teaspoon salt	Colored sugar
2 egg yolks	1 egg white
½ teaspoon vanilla	1 teaspoon water

Thoroughly cream together butter, sugar, and salt. Beat in egg yolks, vanilla, and chopped pecans, reserving a few pecans. Stir in flour gradually. Chill dough for about 4 hours. Roll dough ⅛ inch thick on lightly floured surface. Cut into assorted Christmas shapes. Place on ungreased baking sheet. Sprinkle some with colored sugar. Brush others with a mixture of egg white and water beaten frothy. Sprinkle with chopped pecans. Bake in moderate (375°) oven 8 minutes.

[*Turn to page 78*

How much do you want to spend on her "special" gift?

For gleaming beauty and years of toasting pleasure, give the General Mills double Automatic Toaster.



Even small-sized breads pop up within easy reach. Color control browns toast to perfection every time. **$22.95**

Give her the famous lightweight iron that's shaped for speed—General Mills remarkable Tru-Heat Iron.

Exclusive tapered heel irons backward as smoothly and easily as forward. Iron rolls to rest on its side. **$14.95**

For easiest pressing, give General Mills Steam Ironing Attachment. Slips instantly onto Tru-Heat Iron.

Steam irons many fabrics without dampening; gives deep, quick steam penetration for all pressing. **$8.95**

Look for the Christmas displays of General Mills appliances at your store this month. Handsomely gift-boxed.

Sponsored by Betty Crocker

General Mills Home Appliances

Relieve the PRESSURE of Neuralgic Pain!

● When the tense, pressing agony of neuralgic pain strikes, you want relief *in a hurry*. And here's a way to get it—*quickly, easily, effectively.*

Doctors generally will tell you that neuralgic pain may be largely caused by pressure. Sensitive nerves are irritated. Local areas become tender and swollen. That torture you feel is simply Nature's call for help.

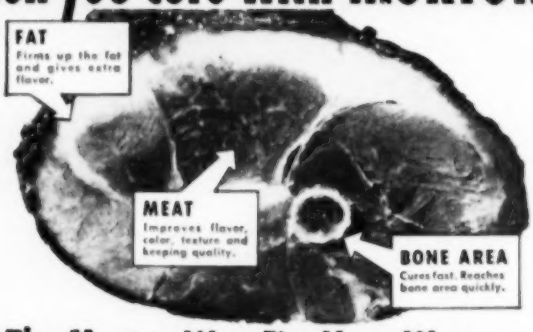
You can get blessed relief—*fast*—by rubbing Absorbine Jr. on the sore, swollen areas. It actually helps to *counter* pressure which may be causing your misery. At the same time, it warms and soothes those pain spots. The speed with which it works will amaze you.

Thousands rely on Absorbine Jr. for its quick, comforting relief from neuralgic and rheumatic pain, from sore, aching muscles. Only $1.25 at all drugstores.

W. F. Young, Inc., Springfield, Mass.

ABSORBINE JR.

Meat tastes best, keeps best when you cure with MORTON'S



The Morton Way Fits Your Way...

FOR perfect ham . . . for making *any* pork cut taste its delicious best . . . use Morton's Sugar-Cure and Tender-Quick. These proven products produce sure results regardless of the curing method you prefer . . . give just the right flavor and keeping quality, delicious eating from rind to bone. Make your meat curing simple and easy. Eliminate guess work, fuss and bother. Try Morton's Sugar-Cure and Tender-Quick. They're complete, ready to use.

FREE! THREE VALUABLE MEAT CURING FOLDERS! Complete, easy directions for regular curing of hams, shoulders and other cuts . . . boneless hams and shoulders . . . and for curing slices or pieces from your home freezer. Write MORTON SALT CO., Box 781, Chicago 90, Illinois.

Santa is in the kitchen

From page 77

Raspberry Turnovers (Makes 8 tarts)

Here's something a bit different. They pack well and eat well—

1 cup sifted flour	¼ cup sugar
½ teaspoon salt	3 tablespoons water
½ cup vegetable shortening	¼ teaspoon almond extract
1 cup quick-cooking rolled oats	Raspberry jam

Sift flour and salt together. Cut in shortening until mixture resembles coarse crumbs. Mix in rolled oats, sugar; add water and almond extract, mixing lightly. Knead dough 4 or 5 strokes until it just holds together. Roll to ⅛-inch thickness. Cut into 5-inch rounds. Place 2 teaspoons raspberry jam on half of the circles. Cut designs from centers of other half of circles. Press the two rounds together with a fork. Place on ungreased baking sheet. Bake in hot (400°) oven for 12 to 15 minutes.

Holiday Bowknots (Makes about 6 dozen)

Not nearly as difficult to make as they look. They'll disappear like magic—

¾ cup vegetable shortening	4 cups sifted flour
¾ cup butter	1 stiffly beaten egg white
1 cup sugar	2 tablespoons sugar
2 teaspoons grated orange peel	Red candied cherries
2 eggs	Green citron

Cream shortening, butter, sugar, and orange peel together. Add eggs; beat well. Stir in flour. Chill dough overnight. Roll into round strips 8 inches long and ¼ inch thick on floured surface. Form each strip into a circle, bringing one end over and through in a single knot. Place on ungreased cooky sheet. Brush with meringue made of stiffly beaten egg white and sugar. Press 3 small pieces of candied cherry in center of knot. Add leaves cut from green citron. Bake in hot (400°) oven for 10 minutes. Do not brown.

Christmas Jelly Roll

Decorated to look like a yule log—

4 egg yolks	¾ teaspoon salt
¾ cup sugar	1 teaspoon baking powder
½ teaspoon vanilla	2 cups red cherry jelly
4 egg whites	
½ cup sugar	
¾ cup sifted cake flour	

Beat yolks till thick and lemon-colored. Gradually beat in ¼ cup sugar and vanilla. Beat for 5 minutes. Beat egg whites till soft peaks form. Gradually add remaining ½ cup sugar. Fold egg yolks into whites. Then add sifted dry ingredients, folding in carefully. Bake in a waxed-paper-lined 15½x10½x1-inch jelly-roll pan in moderate (375°) oven for 12 minutes. Loosen sides and turn out on towel sprinkled with confectioners' sugar. Remove waxed paper. Trim crusts. Roll quickly with fresh sheet of waxed paper on inside of roll. Wrap in sugared towel; cool. Unroll; remove paper. Spread with jelly. Roll again. Drip melted semisweet chocolate on top of roll.

White Fruitcake

Give the fruitcake in the ring mold as a gift. Keep the small fruitcake for the family—

1 3-ounce can chopped citron
1 3-ounce can chopped candied orange peel
1 3-ounce can chopped candied lemon peel
3 3-ounce cans chopped candied cherries
4 3-ounce cans chopped candied pineapple
½ cup chopped dates
½ cup chopped dried apricots
½ cup chopped figs
½ pound white raisins
½ cup flour
1 cup vegetable shortening
1 cup sugar
5 eggs
1½ cups sifted flour
1 teaspoon salt
1½ teaspoons baking powder
½ cup unsweetened pineapple juice
2 cups slivered blanched almonds
2 4-ounce cans shredded coconut

Combine fruit with ½ cup flour; mix well. Thoroughly cream together shortening and sugar. Add eggs, one at a time, beating well after each addition. Sift together 1½ cups flour, salt, and baking powder. Add alternately with pineapple juice. Add floured fruits, slivered almonds, and coconut; mix well. Pour into well-greased 9-inch ring mold and 8½x4½x2½-inch paper-lined loaf pan. Bake in slow (275°) oven 1½ hours. Set a pan of water in oven during baking time. Cool and remove from pans. Glaze with hot corn syrup; decorate with candied cherries and citron. Serve with Hard Sauce.

Chocolate Macaroons (Makes 2 dozen)

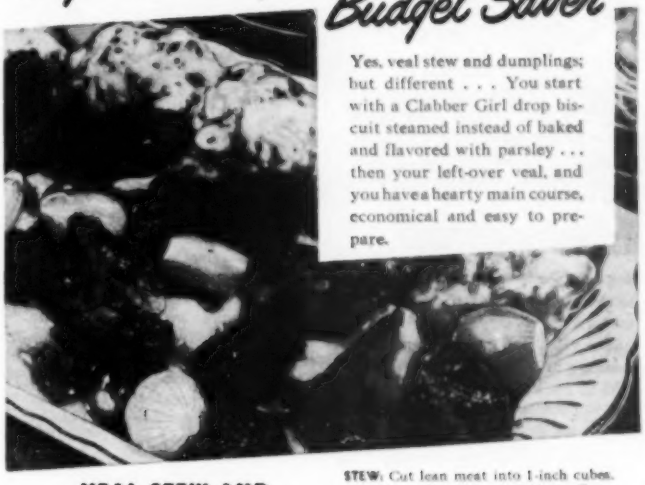
Just right for the toe of a stocking. The best macaroon you'll ever eat—

2 egg whites
¼ teaspoon salt
½ cup sugar
½ teaspoon vanilla
6-ounce package semisweet chocolate bits
4-ounce can shredded coconut

Beat egg whites till foamy. Add salt. Sift in sugar gradually. Beat well after each addition till mixture stands in stiff peaks. Fold in vanilla, chocolate bits, melted and cooled, and coconut. Drop from teaspoon onto ungreased baking sheet covered with clean brown paper. Bake in slow (325°) oven for 20 minutes. Cool before removing from paper.

The recipes for the candies and cookies in the Lazy Susan are on page 88. For tips on how to make and decorate the cookies on the tree, turn to page 67.

"Try this tasty CLABBER GIRL Budget Saver"



Yes, veal stew and dumplings; but different . . . You start with a Clabber Girl drop biscuit steamed instead of baked and flavored with parsley . . . then your left-over veal, and you have a hearty main course, economical and easy to prepare.

VEAL STEW AND PARSLEY DUMPLINGS

Stew

1½ lbs. veal shoulder
2 teaspoons salt
½ teaspoon pepper
¼ cup flour
3 tablespoons fat
2½ cups water
12 onions, peeled
12 carrots, scraped
12 potatoes, pared
½ cup flour
½ cup cold water

Dumplings

1 cup sifted all-purpose flour
1½ teaspoons Clabber Girl Baking Powder
½ teaspoon salt
2 tbsps. shortening
¼ cup chopped parsley
½ cup milk

STEW: Cut lean meat into 1-inch cubes. Combine salt, pepper and ¼ cup flour. Coat meat with dry ingredients. Brown in hot fat. Add water and simmer one hour. Add vegetables and cook until tender. Blend together the ½ cup flour and ½ cup cold water; thicken stew. Drop dumplings by teaspoonfuls on top of meat and vegetables. Cover and steam 12 minutes. Serves six.

DUMPLINGS: Sift together flour, baking powder and salt. Cut in shortening until mixture resembles coarse corn meal. Add parsley and milk; stir until ingredients are just mixed.

Pound for pound, more people use more Clabber Girl than any other Baking Powder.

CLABBER GIRL IS NOW Exclusively KNOWN AS THE BAKING POWDER WITH THE Balanced DOUBLE ACTION

HULMAN & COMPANY TERRE HAUTE INDIANA

Gloxinia 2 BULBS Beautiful Pot Plants 25¢

Gorgeous, easy to grow house plants, 3" to 4" flowers, last for months. Exquisite mixed colors. Send only 25c for 2; 50c for 4; $1 for 8. Order now. Postpaid with big Seed and Nursery Book

R. H. SHUMWAY SEEDSMAN DEPT. 477 ROCKFORD, ILLINOIS

Enjoy better farm living . . .

. . . by letting *Successful Farming* continue to help you solve all your farm problems.

The Farmer's Trading Center is read by millions. Use it to boost your sales.

Musterole breaks up chest colds'

CONGESTION in nose, throat and upper bronchial tubes!

At the first sign of a cough, sore throat and aching soreness due to a cold—rub on highly medicated, *concentrated* Musterole. This great pain relieving rub not only brings speedy relief but *instantly* starts to break up painful local congestion.

Musterole creates a wonderful *protective warmth* on chest, throat and back (like a poultice)—you can *feel* it work to bring amazing relief.

Superficial injuries disappear like magic with BAG BALM—antiseptic-on-contact, lanolin-loaded. For Sunburn, Windburn, too; beneficial massage of Caked Bag. Keep BAG BALM on hand—it pays! At your favorite store. Big 10-oz. tins. *Send for FREE COW BOOK.*

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NEW ELECTRIC DE-ICER

Automatically keeps 15-inch hole in ice to 50° below zero. Thermostat control, 600 watts, average cost only 2 cents a day. Buy only one Rhinehart de-icer in your lifetime — all parts are replaceable for easy servicing. SEND CHECK OR MONEY ORDER

MONEY-BACK GUARANTEE—Only $14.95

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Your business will grow when you advertise in the Farmer's Trading Center.

It's wonderful the way Chewing-Gum Laxative acts chiefly to

REMOVE WASTE —NOT GOOD FOOD

● Here's the secret millions of folks have discovered about FEEN-A-MINT, the modern chewing-gum laxative. Yes, here is why FEEN-A-MINT's action is so wonderfully different!

Doctors say that many other laxatives start their "flushing" action too soon ... right in the stomach where food is being digested. Large doses of such laxatives upset digestion, flush away nourishing food you need for health and energy. You feel weak, worn out.

But gentle FEEN-A-MINT, taken as recommended, works chiefly in the lower bowel where it removes mostly waste, not good food! You avoid that typical weak, tired, run-down feeling. Use FEEN-A-MINT and feel your "peppy," energetic self—full of life! Get FEEN-A-MINT! No increase in price—still 25¢, 50¢ or only 10¢

Feen-a-mint
THE CHEWING GUM LAXATIVE

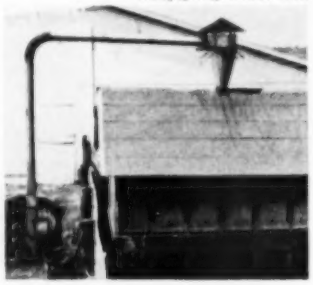
Fill feeder with blower

Handling feed for 50 beef cattle is cut to a minimum by Earl and Ralph Frye, Edelstein, Illinois, by blowing the feed directly from the hammer mill into the 250-bushel self-feeder pictured below. The giant feeder stands in the feedlot just over the fence from the hammer mill.

Ear corn, covered with supplement in pellet form, is hauled to the mill in a wagon. The pellets sift down through the corn and the two are mixed as they are shoveled into the mill. From the mill, the mixed, ground feed goes directly into the self-feeder. It takes about 1½ hours to grind and mix enough feed to last for a week. This is a fraction of the time required by previous methods of feeding.

One-inch lumber is used for the walls of the 8'x10' feeder. Two-inch lumber is

Photographs: Spooner, Schneider



used on the bottom of the trough. The studding, on the outside of the feeder, is of 2x4s. The feeder is portable so it can be moved to any location desired.—*H. L. S., Illinois.*

• • • •

Produce lean meat for no more

Hog raisers can produce lean, meaty hogs to meet housewives' market demands just as economically as they can produce the old-fashioned, lard-type hogs. Dr. L. N. Hazel, swine breeder at Iowa State College, has records on about 600 litters from which carcasses were cut out. Fat hogs failed to take the lead on any of the economy counts.

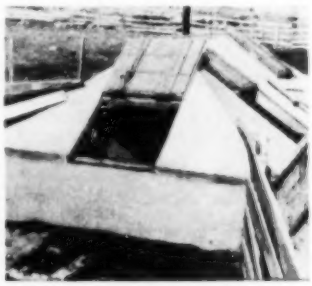
The experiments included Chester White, Duroc, Poland China, Landrace purebred crossline hogs, and crossbred hogs developed especially for their lean, meaty carcasses. The experiments showed the average weights of litters of the different types were comparable at 5 months of age. The average amounts of feed required also were comparable. Dressing percentages from the meat-type crossbred compared closely with those of the purebred of the fatter types.

The experiments also showed that if producers are to get meat-type hogs they will have to produce them by some other means than simply slowing up gains through pasturing. Pigs fed on a concrete floor grew faster and had higher dressing percentages than those on pasture and were only a little lower in lean cuts.

• • • •

Tank cover prevents freezing

Ice is no problem in stock tanks on the Wayland Hopley farm, Cass County, Iowa. A cover placed over the tank helps



cut down the danger of freezing. Another big advantage of the cover is that considerably less fuel is needed to keep the water at a comfortable drinking temperature.

The frame of the tank cover is wooden and covered with tin. Six openings open into three different pens. Each opening is covered with a door which is kept open during the daytime but closed at night. The tank can be used as a pivot point in a feedlot.

• • • •

Pays to feed grain to ewes

Feeding a grain mixture of corn, bran, and soybean oil meal to young ewes during the last six weeks of pregnancy pays, according to a feeding test just finished by A. J. Dyer at the Missouri Experiment Station. He found that the 2-year-old ewes fed grain had larger lambs which grew faster.

The greatest difference was in single lambs. At 19 weeks of age, the single lambs were 10 pounds heavier on the average with a weight of 82 pounds. There was little difference in the twins.

Single lambs from the ewes receiving the grain mixture averaged 10.3 pounds, while the birth weight of the single lambs from the ewes receiving no grain was 8.6 pounds. Twins from ewes on the grain ration averaged .6 of a pound heavier.

Dyer said the ewes were fed 1 pound of the grain mixture, consisting of 6 parts

shelled corn, 3 parts bran, and 1 part soybean meal," per day. However, even this was not enough to keep them from losing some weight as they approached lambing time. Ewes fed grain lost 9.5 pounds of weight during the last six weeks of pregnancy while the ewes without any grain lost 15 pounds of weight during this period.—*O. B., Missouri.*

• • • •

Sell hogs on meat value

Hog carcasses can be separated into weight and grade groups based on the value of the meat they will produce, says W. J. Wills, livestock marketing specialist at the Illinois Experiment Station.

According to a new regional bulletin entitled "Objective Carcass-grade Standards for Slaughter Hogs," the proposed carcass-grade standards will make it possible to sell hogs for more nearly their real value than under the present system.

Twelve cooperating states—Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, Kansas, Kentucky, South Dakota, Wisconsin, Nebraska, and Illinois—and the U.S.D.A. arrived at the standards.

Various measurements, including the thickness of back fat and body length, were taken of each carcass. The average of the thickness of fat at three places along the back proved to be the best single measure for predicting carcass value. These findings were then used to develop five carcass grades by combining the carcass weights and back-fat thicknesses into weight and grade groups.

• • • •

Grass silage vs. corn silage

Feeding tests at the West Virginia Experiment Station indicate that grass silage and corn silage are approximately equal in feeding value on a dry-matter basis. The tests were set up to compare the feeding value of the two silages when used to winter breeding cows.

The cows were started as "yearling-plus" bred heifers. Except for the first winter the rations were entirely roughage —⅔ dry matter from silages and ⅓ dry matter from hay. The rations of these heifers were balanced by adding cracked corn to the legume-grass ration and soybean meal to the corn-silage ration.

The calves from the two lots were of about the same weight at birth. However, the calves fed legume-grass silage made slightly higher summer gains. At weaning time these calves averaged 10 pounds heavier.

• • • •

Rid pigs of lice

To rid pigs of lice, mange, mites, and swine pox, spray and dust both pigs and bedding with lindane, BHC, or chlordane. These pests may develop rapidly when pigs crowd together in cold weather to keep warm. If possible, spray rather than dust. Don't spray in severely cold weather, for this may chill the pigs. Spray every animal to do a thorough job, making sure to hit the back and underside. —*R. V. C., Illinois.*

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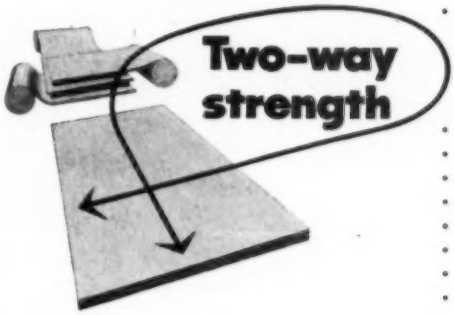

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- SPLITPROOF
- PUNCTURE-PROOF
- KICK-PROOF
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Plywood is the all-purpose farm material. Anyone can work with plywood; only ordinary skill and ordinary carpentry tools are needed. Plywood cuts building time as much as 50% . . . means stronger, more rigid construction, long-time investment value.

Re-side drafty, sagging buildings with big, rigid easy-to-handle plywood panels.

Milk houses and dairy barns re-lined with plywood have smooth, easy to clean walls.

Plywood cabinets are quickly built—to your exact space requirements. Finish easily.

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Learn more about plywood's farm advantages. Write for 28-page booklet, Better Farm Buildings With Exterior Plywood. Send 10c to Douglas Fir Plywood Association, Dept. 2212, Tacoma 2, Washington.

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Large, Light, Extra-Strong Panels of Real Wood

"Durable EXTERIOR-TYPE plywood can even be boiled in water. It's made with 100% waterproof glues. Use EXTERIOR for all farm service buildings. The EXT-DFPA on the panel edge is positive identification. Inside the farm home, use interior-type Douglas fir plywood. Ask your retail lumber dealer!

Science in the Barnyard

By DR. HESS

Smart poultrymen know it's false economy to skimp on feed. After all a hen lays only as well as she eats. In non-stop tests at our Research Farm, pullets getting Dr. Hess Pan-a-min always eat more feed. What's more, minerals and tonics provided by Pan-a-min help each bird turn feed into a lot of added egg power—as many as 14% more eggs per year. *Write for our free bulletin on How to Get More Winter Eggs.*

Egg yield from even the best-fed flock can be cut as much as 15% by lice. Dr. Hess SIX roost paint saves this loss at a cost of about ¼c per bird. Comes in a can that makes it easy to put on perches with no waste. Its benzene hexachloride fumes work fast . . . but not too fast to do a good lice-killing job with one application. *Want a copy of our free illustrated folder on lice control with SIX?*

Hog lice also are at their peskiest from now until spring. Comes the first cold day and hogs pile up to keep warm. Next thing you know those with lice have shared them with the whole herd. Let 'em go, and each louse may be multiplied by millions before winter ends. We recommend Dr. Hess Drycide as an economical way to get rid of lice and hog-house smell as well. Just dust it on hogs or in the bedding. No wet bedding or freezing problems. Get Drycide from your Dr. Hess dealer.

Worming sheep before they're folded for the winter is good insurance against barnlot infestation. For a complete worming job . . . tapeworms as well as roundworms . . . we recommend PTZ Drench, a new Dr. Hess product containing phenothiazine and lead arsenate (also available in Pellets). *Write for our free PTZ worm-control bulletin.*

DR. HESS & CLARK, INC.
Ashland, Ohio
Scientific *Farm-aceuticals* Since 1893

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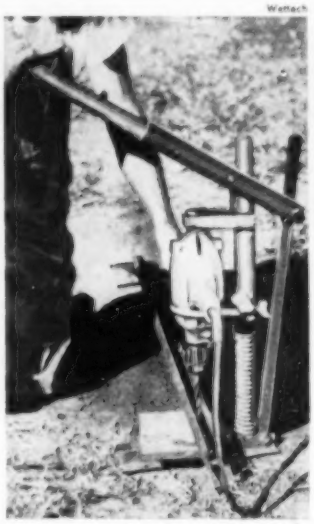
"Remember what lousy layers we were before the boss heard about Dr. Hess SIX?"

Successful shortcuts

Build them yourself, save time and dollars

Wettach



Homemade stand converts an electric hand drill into a small drill press for Wallace Riepe, Henry County, Iowa, making possible faster, easier, more accurate work. A long extension cord enables him to use the drill outside the shop. Or it can be mounted on the shop bench.

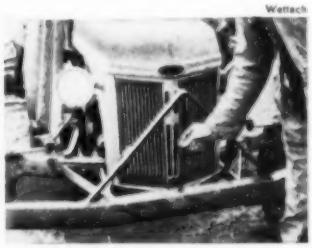
The drill is held by a single band below the trigger grip. The base is an iron stove lid welded to two angle irons. A compression spring slips over post and above it is telescoping pipe on which drill is mounted.

Hancock

Feed bunks, placed against feedlot fence, enable Herman C. Harms, Will County, Illinois, to feed 80 cattle in 20 minutes.

Feed is thrown directly into bunks without opening a gate or entering the lot. Nine feed bunks are used along a 122-foot fence. Wagons are loaded directly from silo.

Wettach



Automobile frame and strap iron were used by Fricke Brothers, Henry County, Iowa, to build combination tractor bumper, radiator guard, front hitch.

Channel iron was notched and bent slightly near ends; then welded to iron brackets bolted to axle.

Rutsch

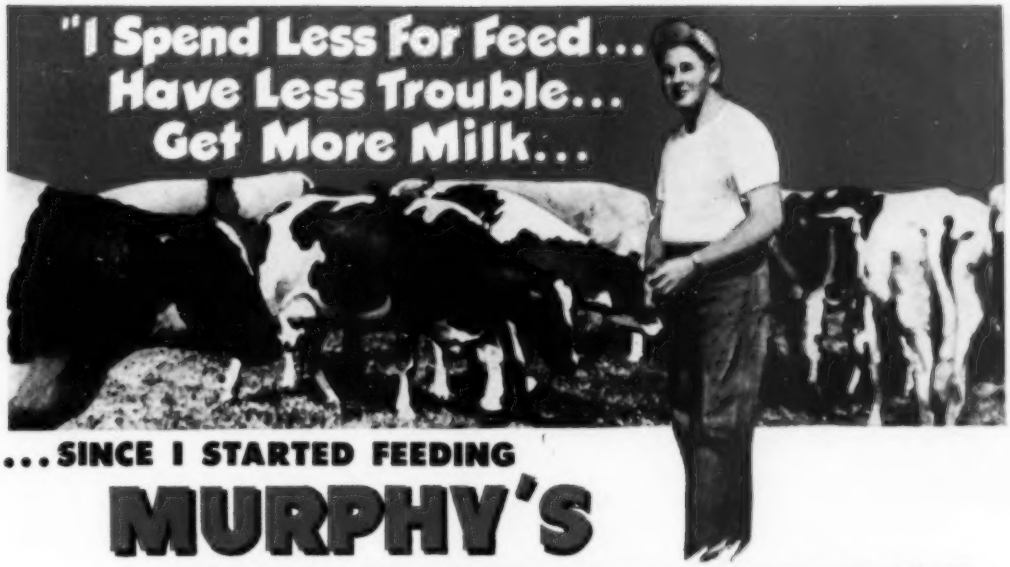
A "king-sized" singletree enables John Shepherd, Boone County, Iowa, to move portable hog- and brooder-houses with a minimum of "pinching" of the buildings' runners.

An iron pipe is placed between the chains just ahead of the runners. When moving, pressure is placed on iron pipe.

McVicker

A tractor hoist makes it easy to move and hoist small items around the farm for L. C. Talley, Unionville, Virginia. The homemade hoist consists of two short pieces of heavy strap iron for supports and a length of strong pipe for the boom.

An iron rod was used for making the three hooks, spaced at three heights, and for adding strength to the hoist. Materials were obtained at a junk yard for a cost of less than $4.



...SINCE I STARTED FEEDING MURPHY'S CUT-COST CONCENTRATE FOR DAIRY CATTLE"

My 15 grade cows have been on the Murphy Feeding Program for more than one year. I have spent less for feed because my farm grown grain goes further. Before switching to Murphy's, breeding troubles and udder troubles were common, but now my cows are in better condition and I have less trouble with them. I get more milk too. I now ship 6 cans of milk a day from 12 of these cows, where a year ago, with 21 cows milking, I shipped only 7 cans. My cows had no special attention at any time. I like very much the even production that my herd maintains on Murphy's. It doesn't fluctuate like it did on my former feed. Murphy's has made me more money with my dairy cows than I ever made on other feed that cost less per ton.

GEORGE W. CRUMRINE
Tremont, Illinois

Dairymen— SAVE CASH, GET MORE OUT OF FARM FEEDS, AND MAKE EXTRA PROFITS THESE FOUR WAYS

1 SAVE CASH. MURPHY'S CUT-COST CONCENTRATE FOR DAIRY CATTLE saves cash because only a small amount is needed—one to two pounds per cow per day. It supplies, all in one bag, the essential proteins, minerals and vitamins needed to balance up farm grain and roughage for better health, better milk production and stronger calves. It cuts feed bills because you use your farm feeds to better advantage and buy only the extra substances you need.

2 SAVE WORK. You can just feed a big tin cupful (12 oz.) of MURPHY'S CUT-COST CONCENTRATE to each cow at milking times. This saves time and work. If you prefer a mixed dairy ration, use a mixture of 200 lbs. CUT-COST, 200 lbs. soybean oil meal or linseed meal and 1600 lbs. ground grain.

3 MAKE FARM FEEDS WORTH MORE. When cows get the extra essential protein, mineral and vitamin substances they need, they do better on less feed. They digest their feed better and get more out of it. Cows look better, feel better, and produce more milk. MURPHY'S CUT-COST CONCENTRATE FOR DAIRY CATTLE supplies, all in one bag, the extra essential substances needed to fortify farm feeds into better balanced rations and make them go further. When you use CUT-COST you are not merely duplicating the grain you grow on your own farm but supplying what is needed to make farm feeds into more complete rations.

4 SIDE-STEP BREAKDOWNS. Feed deficiency troubles take a big slice out of dairy profits. You can side-step many feed deficiency breakdowns, such as low milk production, breeding troubles, lameness, weak bones, rough coats and puny offspring by properly balancing up your farm grain and roughage with MURPHY'S CUT-COST CONCENTRATE FOR DAIRY CATTLE. All in one bag you get extra high levels of Vitamin A and other vitamins, essential minerals, including extra trace minerals, the right blend of proteins—a balance of more than twenty ingredients. These enable CUT-COST to help build and maintain good dairy cow health, and to avoid the costly breakdowns that usually result from deficient rations.

See your Murphy Feed Dealer and start using MURPHY'S CUT-COST CONCENTRATE FOR DAIRY CATTLE. Let MURPHY'S help you save cash, save work, save feed, and side-step breakdowns and losses.

YOUR MURPHY FEED DEALER CAN SUPPLY YOU NOW WITH:

- MURPHY'S CUT-COST CONCENTRATE FOR DAIRY CATTLE
- MURPHY'S CUT-COST CONCENTRATE FOR BEEF CATTLE
- MURPHY'S CUT-COST CONCENTRATE FOR HOGS
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- MURPHY'S CALF CONCENTRATE
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They're all guaranteed to give improved vigor, faster gains, better production, lower feed costs, or your money back.

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Honest, I'm not much trouble . . .

He isn't, either, if you have sure, safe Sergeant's Dog Care Products to help keep him healthy and happy. There's one for practically every need. Worms, for example, clear out quickly and surely with SURE-SHOT (for big dogs) and Puppy Capsules (for small dogs). Other products for fleas, insufficient vitamins, skin irritation, ear ailments. All veterinarian-certified. Relied on by dog owners for 77 years. **FREE:** Your dog care problems are answered by authorities in Sergeant's Dog Book. At drug or pet store —or write Sergeant's, Dept. K-50, Richmond 20, Virginia.

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SAVE $100.00 LIME-SEED-FERTILIZER BROADCASTER
COSTS AS LITTLE AS $66
Factory to you, plus seven cent money. Stands low and compact. Special hitch. No-Clog agitator. Gives exact spreading. 50 lbs. to 8,000 lbs. per acre. Sizes 3 to 14 ft. Iron-clad guarantee. 16,000 working in 28 states.
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MOORE MANUFACTURING CO.
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Decorating advice. Stores offering **Successful Farming's** home planning service are listed on page 69. Visit store nearest you for help with decorating problems.

BEAN'S Cottontail Rabbit Repellent
Prevents Gnawing, Girdling. Quart — $1.75; protects 40-50 young fruit trees all winter. Gallon — $5.75; pint — $1.00; half-pint — 60c. (Postpaid).
F. R. BEAN COMPANY, SCOTTSVILLE, N. Y.
Farm Chemical Formulations Division 7.

Keep *Successful Farming* coming your way. Each month in *Successful Farming*, you will find the kind of information that will help you increase your profits, make your farm work more convenient, and your farm living more comfortable.

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Here's the latest addition to the famous HUMBOLDT Loader Line — the new MLW. Features exclusive "Variable Control" for greater speed, height and power. Models to fit most popular model tractors. Powerful, smooth working. Easy to install. Full line of attachments. Write for **FREE** circular.
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Deaths run high when scours hit young calves. At best it leaves them washed out, and stunts their growth. Stop scours P.D.Q. — with SKP. Works 3 *ways* for best results: Sulfathiazole kills the germs. Kaolin absorbs dehydrating poisons. Pectin gives intestinal walls a protective coating. Get SKP from your Dr. Hess dealer. Dr. Hess & Clark, Inc., Ashland, Ohio.

Dr. HESS SKP

Scientific Farm-aceuticals Since 1893

Laughing at Life

Versatile Misfit

"What did you do in civilian life?" asked the officer.

Replied the draftee: "Oh, I mowed lawns, shoed horses, taught school, milked cows, mixed concrete, laid bricks, felled timber, dug coal, painted houses, grew oranges, cut hair, washed windows, shot rabbits, sawed wood, drove cars, waxed floors, picked cotton, set type, and played a saxophone—among other things."

"Oh, well," said the officer, "I guess we'll be able to fit you in somewhere."

Impatient to Be Patient

"Your husband seems to be very impatient lately."

"Yes, he is, very."

"What's the matter?"

"Well, he is getting tired waiting for a chance to get out where he can sit patiently hour after hour waiting for fish to nibble at his bait."

• • • • • • • • • • • • • • • • •

The Error of Our Ways

(Calls From the News Columns)

Frank Disclothesure

Dresses sold for ridiculous figures.—*Ogden (Utah) Standard-Examiner.*

No Tallow Candles?

For sale: 45 head of sheep; $15 for yearling muttons, $25 for ewes with lamps.—*Boerne (Texas) Star.*

Who's Being Fooled?

We tell the best line to our customers.—*Advertisement in Athens (Ohio) paper.*

"He's eating his supper. Will it keep?"

It's fun to be PRACTICAL

IN THE WORLD of today, automobiles are a necessity—to get you from here to there and back again, quickly, safely and economically.

And even if you're considering a car for no other reason, a Buick's a wonderful buy.

But Buick engineers have also poured in a lot more while they were about it—a lot of pleasure for good measure, a lot of things to make it *fun* to be practical—in a Buick.

Just check a brief list, and you'll see what we mean.

Every Buick Fireball 8 Engine has a unique principle of combustion. It makes this long-lived valve-in-head engine mighty thrifty with fuel. But it's also the very reason for the extra lift and surge you feel as you pour on the power.

Stout coil springs are placed at each wheel in every Buick—because coil springs never need servicing and are practically breakproof. Beyond that, all-coil springing is a prime reason for the wonderfully cushioned ride that keeps you always on the level.

A rugged torque-tube holds your rear wheels in rigid T-Square alignment—and turns out to be the big reason for the steady, swerve-free going you enjoy.

Then there's the ever-gentle, liquid-smooth power delivery of Dynaflow Drive.* It cushions the whole car against strain and shock—saves you money on repairs and tire wear in the bargain. But it's also a hopper-full of fun and comfort and driving ease.

What it all boils down to is really *practical* pleasure—and the price tags on any Buick will confirm that.

How about stopping in at your Buick dealer's this week and learning just how much fun there is to be had in the common-sense buy called Buick?

BUICK *Division of* GENERAL MOTORS

*Equipment, accessories, trim and models are subject to change without notice. *Standard on Roadmaster, optional at extra cost on other Series. †Optional at extra cost.*

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Two great television events: The TV Football Game of the Week, Saturday, November 29, and Buick Circus Hour every fourth Tuesday.

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No other anti-freeze gives your car the same complete protection!

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BRAND
ANTI-FREEZE

You're SET

Just put "Prestone" anti-freeze in and forget it till spring! No "boil-away" worries . . . no repair bills—its special inhibitors give the world's best protection against rust, clogging and foaming.

You're SAFE

High compression engines and efficient car heaters make non-evaporating anti-freeze more important now than ever. There's not one drop of boil-away alcohol or methanol in "Prestone" anti-freeze.

You're SURE

With "Prestone" brand anti-freeze in your car, you're sure you've bought the best. It's America's No. 1 brand. No other anti-freeze gives your car the same complete protection. It's guaranteed!

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$3.75 PER GAL.	$1.00 PER QUART, IN QT. CANS

Antibiotics

From page 39

Will antibiotics speed the growth of turkeys?

Yes, turkey poults respond more to antibiotic feeding than chickens. The addition of an antibiotic to turkey-poult rations increases the growth rate by 20-25 percent up to 8 weeks of age. Some researchers feel that turkeys should be fed antibiotics for at least 12 weeks. More research is needed before the length-of-antibiotic-feeding question can be completely answered.

Between what ages is it profitable to feed antibiotics to young calves?

As with other livestock, the greatest response to antibiotics is during the first weeks after birth. Studies at Cornell University and Iowa State College bear this out. At Cornell, calves on an antibiotic ration gained 22 percent more rapidly during the first 8 weeks of the feeding trial than did calves on a non-antibiotic ration.

Calves fed for 8 weeks on a feed containing antibiotics scoured less than those not receiving the antibiotic, according to Cornell researchers. In their experiment, calves receiving no antibiotic scoured an average of 10 days during the 8-week period. Calves receiving the antibiotic scoured only 4 days during the same period.

Is there any danger of feeding too much of an antibiotic to livestock?

There seems to be little danger of animals' getting too much of an antibiotic. Most authorities say farmers should be worrying about not feeding enough antibiotics instead of the other way around. Feeding the higher-than-recommended amounts of an antibiotic won't hurt the animal, but it may dent your pocketbook a bit.

Can antibiotics be bought in concentrated form and mixed with home-grown grains?

You can buy a premix. Don't buy straight antibiotics. The amount needed is so small that it would be very difficult to mix a straight antibiotic properly. Even with a premix, some sort of mechanical mixer should be used to make sure the antibiotic is thoroughly distributed in the feed.

Is there any danger in suddenly stopping the feeding of antibiotics?

There's no danger in this practice, but it's foolish to do so. If antibiotics are withdrawn from animals during the recommended period of feeding, weight gains will nose-dive.

How much does an antibiotic add to the cost of a commercial feed?

Antibiotics cost about 15 cents a gram. This means that in a ton of complete feed, $1.65 to $2 of the cost can be chalked up to antibiotics. In a ton of supplement, $10 to $15 of the cost is for the antibiotic.

Will feeding antibiotics break down an animal's natural resistance to some diseases if they are fed over a long period?

This is the biggest question in the field of antibiotic feeding today. Research workers just don't know, but they're working to find the answer. END

Why you say it!

Among the Anglo-Saxons, there was no element comparable to the modern middle class. Society was divided into a very large group of poor and a few rich.

Persons of the ruling class lived in great castles, and kept large numbers of servants. It was customary to set aside small buildings near the main house for such chores as cooking, baking, weaving, churning, and so on. Many a female servant, or *dey*, spent all her waking hours at some particular task.

Over a period of generations, any building in which the dey worked came to be called a *deyery*. Work done in such a little house varied from one estate to another. But there was one element in common—practically every deyery had milk sitting about. Consequently, at least as early as the Tenth Century, any place where milk was handled came to be called by the name of the servant's house. Slightly modified in spelling, the name entered modern English as *dairy*. —*Boyd G. Wood.*

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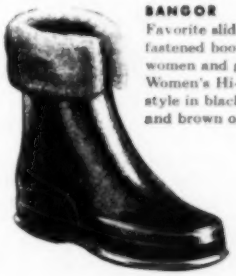

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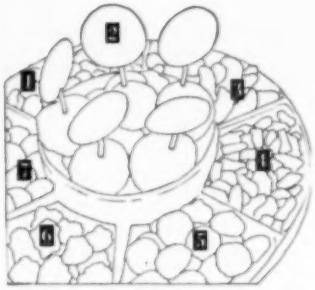
Lazy Susan tidbits



In the big Lazy Susan: 1. Orange-sugared Walnuts; 2. Lollipop Popcorn Balls; 3. Almond Crescents; 4. Red-and-white Taffy; 5. Brown-eyed Susans; 6. Divinity Puffs; 7. Apricot-Coconut Balls.

Orange-sugared Walnuts

Mighty good for munching—

2 cups California walnuts
1 cup sugar
¼ cup water
3 tablespoons orange juice
½ teaspoon grated orange peel

Heat walnuts in moderate (375°) oven 5 minutes; cool. Combine sugar, water, and orange juice. Cook to soft-ball stage (234° on a candy thermometer). Add nuts and orange peel. Stir until syrup begins to look creamy. Drop by spoonfuls on greased baking sheet to harden.

Lollipop Popcorn Balls

Here's a recipe the children will have fun making. Form the ball around a lollipop—

1½ cups sugar
½ cup red cinnamon candies
1 cup water
2 tablespoons vinegar
½ teaspoon salt
3 quarts popped corn

Cook sugar, cinnamon candies, water, vinegar, and salt to hard-ball stage (250°). Remove from heat. With damp cloth, wipe crystals from pouring side of saucepan. Pour hot syrup over hot popped corn. Form into balls around lollipop sticks. Makes about 8 popcorn balls.

Apricot-Coconut Balls (Makes 1 dozen)

Don't need cooking, just mix them together. They're slightly tart-tasting—

¼ cup dried apricots
¼ cup shredded coconut
½ cup California walnuts
1 teaspoon grated lemon peel
1 teaspoon lemon juice
Colored sugar

Wash apricots; steam 5 minutes in top of double boiler. Put through food grinder with coconut, walnuts. Add grated lemon peel and lemon juice. Shape mixture into balls about 1 inch in diameter. Roll in red and green colored sugar. Chill in the refrigerator before serving.

Almond Crescents (Makes 6 dozen)

½ cup shortening
½ cup butter
½ cup sugar
⅔ cup ground blanched almonds
1⅔ cups sifted flour
¼ teaspoon salt
Red cinnamon candies
Colored sugar

Thoroughly cream together shortening, butter, and sugar. Blend in finely ground almonds. Sift together flour and salt. Work flour mixture into creamed mixture. Chill dough overnight. Roll into strips ¼ inch thick on floured surface. Cut into 3-inch lengths. Form into crescents on ungreased baking sheet. Decorate half of cookies with a row of cinnamon candies. Bake in slow (325°) oven till set but not brown (about 14 to 16 minutes). Cool on baking sheet. Dip undecorated cookies in colored sugar while still slightly warm.

Red-and-white Taffy

2 cups sugar
½ cup light corn syrup
⅔ cup water
¼ teaspoon cream of tartar
¾ teaspoon peppermint extract
1 teaspoon red food coloring

Combine sugar, corn syrup, water, and cream of tartar. Stir till sugar dissolves. Cook, without stirring, to light-crack stage (265° on candy thermometer). Take from heat and add peppermint extract. Divide in two portions. Add red food coloring to one part. Pour each portion on a greased platter. Pull each part separately when cool enough to handle. Form into ropes. Cut into 1-inch pieces.

Brown-eyed Susans (Makes 3 dozen)

½ cup butter
½ cup shortening
3 tablespoons sugar
1 teaspoon almond extract
2 cups sifted flour
½ teaspoon salt
1½ cups confectioners' sugar
2 tablespoons cocoa
2 tablespoons hot water
½ teaspoon vanilla
Blanched almond halves

Cream together butter and shortening. Blend in sugar, almond extract, flour, and salt. Roll level tablespoons of dough into balls. Place on greased cooky sheets; flatten slightly. Bake in hot (400°) oven for 10 to 12 minutes. Cool. Combine sugar, cocoa; add hot water and vanilla. Put ½ teaspoon of frosting on each cooky. Top each with a blanched almond half.

Divinity Puffs (Makes 4 dozen)

2 cups sugar
½ cup light corn syrup
½ cup water
Few grains salt
2 egg whites
1 teaspoon vanilla
Cinnamon candies

Combine sugar, corn syrup, water, and salt. Boil mixture gently till it reaches soft-ball stage (240° on candy thermometer). Beat egg whites stiff but not dry. Pour ⅓ of cooked syrup over egg whites, beating constantly at high speed. Cook remaining syrup to light-crack stage (265°). Beat remaining syrup into the egg white-syrup mixture, beating till it stands in peaks. Let cool till mixture holds its shape when dropped from a spoon (about 10 minutes). Add vanilla. Quickly drop by teaspoonfuls on greased cooky sheet. Swirl each piece with a spoon to form a peak. Decorate with cinnamon candies. END

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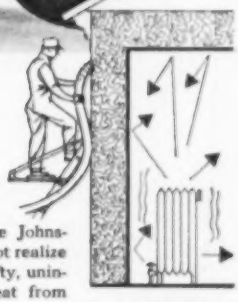

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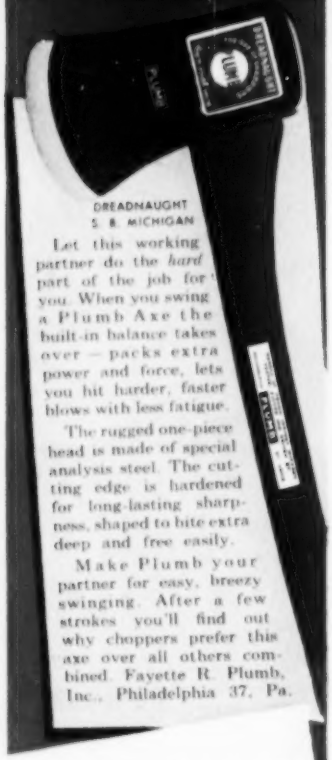

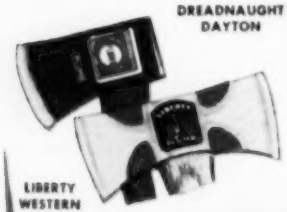

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Laying-house comfort

Extra-long eaves and sunshade, plus an enclosed laying house with large insulated glass windows, provide year-round comfort for laying hens on the Clarence Hagans farm, Batavia, Iowa. These features, combined with plenty of space, a deep-litter program, and automatic feeders and waterers, enable Hagans better to control diseases and cannibalism in his flock. He has little trouble keeping the laying house dry and his flock laying at a high, even clip the year round.

Eaves, with extra-long overhang of about 18 inches, shade the building almost all day during the summer months. To provide additional protection, Hagans hinged homemade wooden sunshades to the end of the eaves. The shades can be propped at any angle to provide adequate shade as shown in the picture below.

In the winter, when solar heat can be utilized to help heat the inside of the house, the shades are not needed. They can be folded back under the eaves and fastened to the house with a slide bolt.

The insulated glass windows are two glass plates separated by about half an inch of dry air. Each window comes as a complete sealed unit.

A ventilation system, consisting of an exhaust fan in each pen, provides summer ventilation. A heat exchanger provides ventilation during the winter and transfers heat which would normally be lost with the exhaust air to the incoming air.—*D. S., Iowa.*

Photographs: Benn

Insulated glass windows make use of solar heat to help warm inside of laying house. Long eaves and extra sunshade provide protection from sun in summer. Extra sunshade folds under eaves during winter

• • • •

How much to keep a hen?

The average cost of keeping a hen, according to C. Del Kearl of the Cornell Agricultural Economics Department, is $7.26. Twenty-two "cost account" farms, having a total of 3,372 birds, were used in the study. Fifty-nine percent of this cost, or $4.26, was for feed.

Labor was the next most important item of cost and amounted to 16 percent of the total. It required an average of 1.2 hours of labor for each layer. Feed and labor made up a total of $5.40, which was 75 percent of the total cost of keeping layers. Other items, such as depreciation, interest, power, equipment, and building, made up the remaining cost.

The returns from these laying flocks were 190 eggs per layer, which were sold for a total of $7.39 per layer. In addition, manure was figured at 6 cents per bird. The total return ($7.45) minus the cost ($7.26) leaves a profit of 19 cents per layer.

• • • •

Leukosis starts with baby chicks

Losses in laying flocks indicate the need for changing management of baby chicks, says D. D. Moyer, extension poultry specialist at Ohio State University. Deaths and decreased egg production which are due to fowl leukosis cannot be prevented or stopped once it starts.

The time to stop leukosis losses in next fall's laying hens is when they are baby chicks. Leukosis is picked up by baby chicks. However, the disease does not start causing losses until after birds have started to lay.

Tests show that baby chicks brooded in isolation from laying flocks are less likely to get leukosis than chicks exposed to older birds. Losses among isolated birds in tests were from 6 to 9 percent. Among flocks that had been brooded near older birds, losses were between 50 and 60 percent.

Although complete isolation may not be practical, brooderhouses can be located at a distance from laying houses. The person caring for the laying flock should stay away from baby chicks, especially during the first few weeks.

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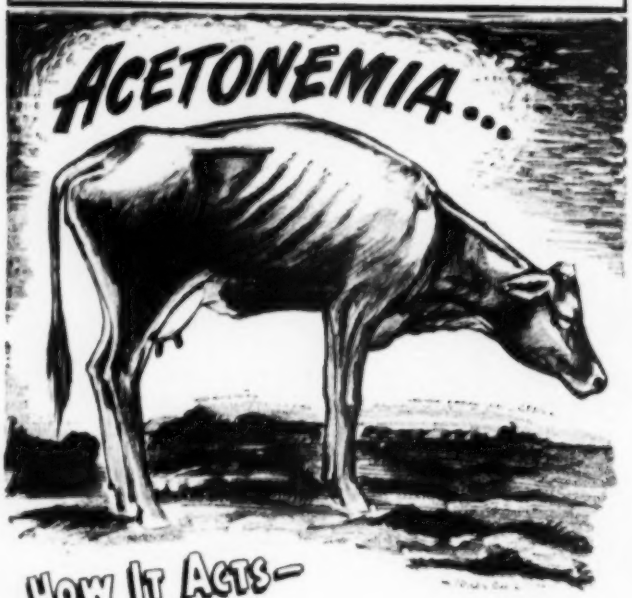

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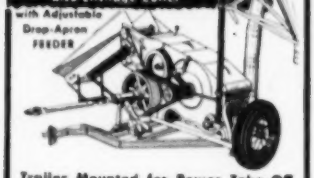

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Year-round grazing

From page 45

to buy in the fall. Buying a certain number of cattle in the fall and then hoping for enough pasture the next summer is too risky for me," Ken said.

That explanation of this system sounds pretty reasonable. Here's how it worked a year ago.

In October, Ken bought 100 head of 300-pound calves for $131 a head. These calves were wintered on red-clover silage. Red-clover silage plus 1 pound of alfalfa hay per head per day was fed from October until December. At this time the calves weighed approximately 390 pounds. Then, the calves were fed 1 pound of alfalfa hay, 1 pound of protein supplement, and 2 to 3 pounds of corn-and-cob meal in addition to the silage. This ration was fed until March 1.

In March the ration was changed to 16 pounds of red-clover silage, 12 pounds of corn, 1 pound of hay, and 1 pound of supplement. This ration was fed until the last of April when the calves were put on a full feed of corn and hay.

The cattle were sold in August at a weight of 788 pounds. Ken figures his feed costs amounted to $88 per steer and the selling price was $32.50. He figures he makes about 2 cents more per pound by selling in July or August during the slack marketing season for this grade of cattle.

Two factors make Ken's feeding system successful. First, the harvesting of pasture as silage at a time when the nutrient content is at its peak. And second, a method of getting all kinds of feed into the feed bunk with very little work.

This beef feeder is as sold on silage as anyone can be. "I'll never again make red clover into hay. Silage is clean, easy to work with, and the danger of bad weather and spoilage is gone," is the way Ken puts it.

Ken decided early in the game that it did little good to harvest his red clover at the peak of its nutrient value unless he could keep those nutrients during storage. To do this as cheaply as possible, an aboveground trench silo was built at a cost of $140.

The silo is 125 feet long and 15 feet wide. This is big enough to hold 250 tons of silage. At the McCord farm, the clover is allowed to wilt for a short time before going into the silo. Ken also adds 30 pounds of 70-percent molasses per ton.

Filling the silo is anything but a dump-and-run proposition. Extra care is taken to make sure the silage won't spoil. At filling time, the silage is never dumped directly into the silo. Each load is dumped at one end of the silo and then pushed into the trench with a tractor and bulldozer blade. Ken thinks this method helps cut down spoilage. The silage is distributed evenly with the bulldozer and there's less chance for air to be trapped in the silage. A tractor is used to pack the silage, and no covering is used.

Not all of the crop from the pasture-

land on this farm goes into the silo. Some is harvested for hay, but no more than absolutely necessary. Ken feels that a small amount of dry matter is necessary for cattle to do well on silage. According to Ken, making forage into hay cost more per 100 pounds of nutrients saved than putting it into the silo.

After some experience with silage, Ken was pretty sure he could get consistently good feed from it. But, he realized that regardless of how good the feed, much of its value in the form of marketed beef could be lost if it took too much labor to get it out of storage and into the feed bunk.

Second only to high-quality silage in this beef-feeding enterprise is the labor-saving method of feed handling. Ken built his system about two years ago and it meant the end of handling feed by hand!

First, handling silage isn't the back-breaker it used to be. Ken built his above-ground trench silo just outside the fence at one end of the feed yard. The feed-cart track—which runs the length of the bunk—extends out over the end of the feed yard.

At feeding time, the feed cart is pushed out to the end of the track. A tractor equipped with a manure scoop is driven into the silo trench and the scoop is loaded. The tractor is backed out and the silage is dumped into the feed cart. Then, it's merely a matter of pushing the cart the length of the bunk to dump the silage. Simple? Sure, but think of the time and labor saved.

At the other end of the feed-cart track, Ken stores all his grain and supplement. The track extends into the barn and right next to an old upright silo. But the upright silo isn't used for silage. It's used for storing shelled corn.

The silo has a V-shaped floor. Ken installed the floor and also built the conveyer which brings the shelled corn out of the silo. The conveyer lifts the corn out of the silo and into a stationary grinder. From the grinder, the ground corn is elevated into a 50-bushel overhead hopper.

At feeding time, the feed cart is pushed

[*Turn to page 94*

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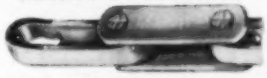

NEW SUPER HEAVY CHAIN . . . Up to 100 cows . . . 35,000 lbs. test.

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STANDARD CHAIN . . . Up to 60 cows . . . 22,000 lbs. test.

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ECONOMY CHAIN . . . Up to 30 cows . . . 15,000 lbs. test.

Built wider, heavier, stronger than ever. More resistant to corrosive liquids. More resistant to wear. Larger, heavier rivets. Heat treated. Flexes easily. Farm test-proven the best link design.

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CLAY EQUIPMENT CORPORATION
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I have cows _____ I am building _____
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☐ BARN CLEANER CATALOG—ALSO— ☐ BARN VENTILATION
☐ FARM WINDOWS ☐ STALLS AND TOMBSTONES
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HELPFUL SUGGESTIONS for solving all types of farm problems are found in each issue of *Successful Farming*.

No matter what else you take

FOR COLDS YOU NEED BAYER ASPIRIN FIRST!

TO RELIEVE PAIN AND DISCOMFORT

FEEL BETTER FAST!

NEW MIGHTY FARM ChainSaw

★ DEVELOPS 5 HP.
★ WEIGHS ONLY 29 LBS.
★ MOST POWER PER POUND

There's never been a gasoline ChainSaw so light in weight that packed so much power. With new automatic chain oiler. Pin-point balance for easy, tireless operation. New die-cast design eliminates needless weight and parts. For free tryout, see your Mall Dealer or write Office listed below.

Send for Free Booklet "A Goldmine in Trees"
REVISED EDITION

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WHY PENDISTRIN® SQUIBB TREATS MASTITIS MORE EFFECTIVELY...

SQUIBB *Special* OINTMENT BASE ASSURES

Thorough penetration

Prolonged action

The special "carrying agent"—working with high-potency antibiotics—makes Pendistrin a more effective treatment for mastitis.

This especially formulated ointment base melts quickly... floats on the milk... disperses thoroughly throughout the quarter... reaches into the minute recesses of glandular tissue.

Antibiotics are released slowly... remain active up to 48 hours... attack organisms at the moment in their life cycle when most susceptible.

Each tube of Pendistrin contains 100,000 units of penicillin plus 100 mg. of dihydrostreptomycin—a highly potent combination. It is stable, non-irritating. Antibiotics are held in suspension—will not settle out.

Get Pendistrin from your druggist—in the handy "instant-use" tube! Write for free literature: E. R. Squibb & Sons, Veterinary and Animal Feeding Products Division, Dept. SF-12, 745 Fifth Ave., New York, N. Y.

Get handy "barn box" from your druggist!

Keep Pendistrin on your barn shelf—ready for prompt treatment *at the first sign* of mastitis. Requires no refrigeration. Get "barn box" of 12 "instant-use" tubes—from your druggist, today.

For the most common kind of mastitis

SQUIBB PENICILLIN OINTMENT

For mastitis caused by *streptococcus agalactiae*—the most common kind—use Squibb "Instant-Use" Penicillin Ointment. Proved successful in millions of cases over a period of more than 3 years. Ask for Squibb Penicillin Ointment at your druggist's.

For accurate diagnosis of mastitis, consult your veterinarian.

PENDISTRIN (Reg. U. S. Pat. Off.) is a trademark of E. R. Squibb & Sons

SQUIBB - A NAME YOU CAN TRUST

Year-round grazing

From page 93

beneath the hopper and filled with the ground grain and supplement. Then it's pushed out over the bunk and emptied—no lifting, no shoveling.

According to Ken, it's cheaper to build conveyers than to build overhead grain storage. He built two short conveyers for about $50.

Another laborsaver on the McCord farm is the hay-storage building. The hay is chopped and mow-dried. An inverted V-shaped duct runs the length of the hay-storage building. An unheated-air dryer is used to cure the hay after it's in the storage shed.

This beef raiser figures the hay dryer easily pays for itself. A look at his record book shows that it cost Ken $16.80 to dry 20 tons of hay. Another 20 tons were dried at a cost of $10.27. The difference in cost

> **Intuition: The strange instinct that tells a woman she is right, whether she is or not.**
> —*Ambrose Bierce*

is caused by the weather during the time the dryer is used. Because the dryer blows unheated air through the hay, the drier the outside air, the quicker the hay is brought to the right moisture content.

Feeding the hay is a self-serve proposition. Feeding gates hanging on wires are moved back as the cattle eat into the stored hay. Ken spent less than 2 hours' labor feeding 40 tons of hay with the movable gates.

With all these laborsaving ideas for feeding, it doesn't take Ken long to get the cattle fed. When the cattle are on roughage alone, it takes about 1 hour per day to feed 100 head. When the ration is changed to include grain and hay, it takes about 45 minutes. And when the cattle are put on a full feed of corn and hay alone, 30 minutes is plenty of time to feed 100 head.

With this feeding setup, plus the fact that a pasture failure doesn't affect the cattle on hand, Ken is convinced he can successfully handle twice as many cattle as he has been. And he plans to do just that in a few years. For him, grazing the cattle at the feed bunk instead of on pasture is the surest way of making money in the beef business. **END**

Your Successful Farming subscription

Whenever you write us about your *Successful Farming* subscription, be sure to enclose an address label clipped from a recent copy. This will help us to find the information you request and send you a prompt reply.

Address your subscription inquiries to the Service Division, *Successful Farming*, Des Moines 3, Iowa.

Cuts grass silage with Chain saw

Double use is made of a chain saw by Frank Brown, Middlesex County, Massachusetts. Besides using it to cut cordwood, Brown finds it a big help in removing long-grass silage from a trench silo (see picture below). An 18-inch blade is used.

To get the first bite, Brown cuts the silage down from the top. Then he makes a pass across the entire top of the pile. Convenient-size blocks of silage are cut

Photograph: Stratton

and forked into a truck. An old ax or hay knife is used along the edges of the trench to avoid dulling the saw.

The only additional equipment needed is an offset to place the blade on one side (instead of the center) and a different chain than is used for wood. It takes only a couple of minutes to change the chains from wood to silage, including installing or removing the offset plate. Another advantage with the offset is that trees can be cut within an inch of the ground.—*C. L. S., New Hampshire.*

Iodine is best lamb disinfectant

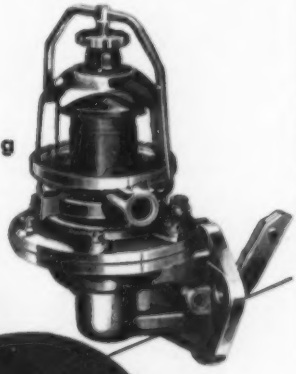
After tests of many disinfectants for sheep and lambs, Graydon Blank, Michigan State College animal husbandry man, says a tincture of iodine solution has no equal. It's the best to use when docking, castrating, and disinfecting the lamb's navel at birth. The recommended strength is made by diluting regular tincture of iodine with an equal part by measure of rubbing alcohol.

This Pump MAKES ARID ACRES FERTILE

Reaching down half a mile to the water table, pumps like this pour 1800 gallons of water per minute on land that was formerly desert and thought to be impracticable to irrigate. Result: Bumper crops of cotton, wheat and other farm products in California's San Joaquin Valley

This Pump

Keeps 40,000,000 Cars Rolling



AC FUEL PUMPS

America's First and Finest

Although only a small fraction of the size and cost of the huge irrigation pump, pictured above, the fuel pump on your car is every bit as important in its operation.

In fact, car owners who have been stalled by a worn-out fuel pump—many miles from a service station—can tell you how essential it really is.

If your pump has seen many years of service—prevent trouble before it happens—replace it with a new AC. More than 100,000,000 have been built—over 40,000,000 are in daily use.

AC SPARK PLUG DIVISION GENERAL MOTORS CORPORATION

Sleepytime patterns

Stitch these for the family for comfortable, good-looking bedtime wear. Tuck them underneath the Christmas tree as an extra special present every ward be welcomes

Drawings: E. Neiss

5981. For Mother and Big Sister here's a wonderfully cozy winter slip-on. Make the robe in a becoming, lightweight wool

5878. For Father, Older Brother, a pair of pajamas tailored at home is sure to be long enough, sure to be welcome

5237. Younger Brother will like the grown-up look of these man-tailored pajamas. They're quick and easy to make

5721. Baby is snug as can be in sleepers like this. In wonderful new flannel prints, they make gay, launderable gifts

5982. Little Sister will enjoy being the little lady in a picture-book robe. It's quaint, feminine, and fun to wear

Back views of these Advance Patterns on page 98

"The most exciting part of Christmas for the children and me," Mrs. Deines explains, "comes weeks before the day itself when we start rummaging in the attic for costumes for the school pageant.

"I enjoy making them. And, when I'm sewing is one of the times I appreciate Jergens Lotion. It prevents 'catchy' fingers that feel so disagreeable when you handle fabrics.

"Christmas starts in our attic!"

says Mrs. Harry J. Deines of Warren, Va.

"A curiosity on our farm is a very old water ground corn meal mill which I still run. It *is* hard on my hands, but Jergens Lotion smooths them right up again.

"The cows' 'beauty treatments' take more time than my own! I just smooth on Jergens Lotion in a moment between chores, to keep my hands soft and comfortable.

"Our youngsters have really been brought up on Jergens Lotion. We use it for our hands, all over after baths, and on our arms and legs to prevent chapping and roughness."

Jergens is effective – doesn't just coat the skin like ordinary lotions. Jergens *penetrates* the upper layer and gives it softening moisture. 10¢ to $1, plus tax.

Remember **JERGENS LOTION**...because you care for your hands!

Set the two simple dials of a Hamilton Dryer and washday's over! In any weather! All you do is take out the clothes—ready to iron or put away. Isn't it time *you* got a Hamilton? The original automatic clothes dryer . . . now more wonderful than ever.*

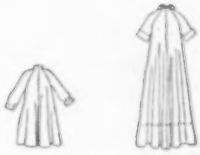
Dept. 2199 **Hamilton Manufacturing Company** Two Rivers, Wisconsin

*Exclusive Hamilton Features: "Carrier Current" Drying cradles clothes in warm air • Hi-Power Exhaust System carries lint and moisture outside • Sun-E-Day Ultra Violet Lamp makes clothes fresher, sweeter • Hamilton Lint Control, twice as efficient, far easier to clean.

Sleepytime patterns

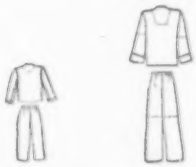
From page 96

5981. Women's robe. Size 16 requires 5 7/8 yards of 39-inch fabric, 3 1/8 yards of contrasting trim. Width at lower edge, 136 inches. Sizes 12 to 20. Price is 35 cents.



5982. Young girl's robe. Size 4 requires 3 1/8 yards of 35-inch fabric; 2 yards cording for sash and 2 yards of lace edging for trim. Sizes 2 to 10. Price is 35 cents.

5237. Boy's pajamas. Size 8 requires 2 3/8 yards of 54-inch fabric. Optional style (not shown) requires 3 5/8 yards, 35-inch fabric. Sizes 4 to 12. Price is 15 cents.



5878. Men's pajamas. Size B (chest size, 38-40) requires 5 1/4 yards of 35-inch fabric. Pattern sizes, A (34-36), B (38-40), C (42-44), D (46-48). Price is 35 cents.

5721. Child's sleeper. A size 4 sleeper requires 1 1/2 yards of 54-inch material to make. Pattern comes in sizes from 1 to 6. Price is 25 cents.

These five Advance Patterns are available from local dealers or may be purchased direct from Successful Farming *with the coupon below.*

To: Successful Farming,
4712 Meredith Building,
Des Moines 3, Iowa.

We enclose cash or money order in the amount of $..... for the following Advance Patterns:

☐ 5981 Size.....
☐ 5878 Size.....
☐ 5237 Size.....
☐ 5721 Size.....
☐ 5982 Size.....

Name.....

Address.....

City..... State.....

For this special purpose!

Don't use "anything handy" to clean the toilet bowl—use Sani-Flush and do it right. For Sani-Flush is made for this one special purpose. It not only cleans chemically *without scrubbing*, but disinfects—and removes the germy film that gathers in all toilet bowls even though you can't see it. Just follow directions on the familiar yellow can. At all grocers. The Hygienic Products Co., Canton 2, Ohio.

Sani-Flush

PERFUMED with a mild, fresh fragrance

Farm business is *BIG* business

No industry is changing as much or as fast today as agriculture. No business holds more interest, excitement, or opportunities for progress and profit.

And there's no better magazine for keeping you "up to date" on the latest farming developments than *Successful Farming*. Your problems are our problems, and helping you solve them is our sole aim.

GET QUICK CROP RESPONSE with

ARROW BRAND Natural Rock PHOSPHATE

Ground so fine 70% passes through 325-mesh screen. One low-cost application makes soil phosphorus-rich for 8 to 10 years—boosts yields the first year! Delivered direct from our Tennessee mines 4 to 7 days after order is received . . . for application on crop or pasture land NOW! Ordering from this famous 50-year old firm assures you top quality, **immediate shipment**. Write for prices and literature **today**.

ROBIN JONES PHOSPHATE CO.

Phone-55570, Dept. S, 804 Church St., Nashville, Tenn.

Glamourize your gifts

From page 24

with a perky bow on a gift will add a dash of glamour to an otherwise ordinary-looking package. Try personalizing your gift wrapping—for instance, if it's for a man, give it a tailored and masculine look.

Unusual and interesting gift wrappings can be made without lots of extra and expensive items. All you'll need will be wrapping paper, ribbon or yarn, scissors, gummed tape, glue, some of the finishing touches such as your Christmas-tree balls, holly, candy canes, or a miniature Santa Claus, and a few ideas.

There are a few tips to remember when wrapping your gifts. Take the time to wrap them neatly. Avoid messy ends by tucking them under and carefully securing with glue or gummed tape. Be sure to cut the paper for the size of package you are wrapping so there will be no waste. Plan each package individually for the person who is receiving it. Try some of these ideas and you'll have as much fun getting your gifts ready for Christmas as others will have receiving them.

Try this for a music lover. Make staff by tying five pieces of yarn around package. Draw in notes and clef with crayon or ink

Decorate a package with Christmas tree. Cut out circles from paper doily and glue on in shape of tree. Try white on dark green or red for an interesting combination

RELIEVES PAIN OF HEADACHE · NEURALGIA NEURITIS

FAST

The way thousands of physicians and dentists recommend

Anacin® relieves headache, neuralgia, neuritis pain fast because Anacin is like a doctor's prescription—that is, Anacin contains not just one, but a combination of medically proven, active ingredients in easy-to-take tablet form. Thousands have been introduced to Anacin through their own dentist or physicians. If you have never used Anacin, try these tablets yourself for incredibly fast, long-lasting relief from pain. Don't wait. Buy Anacin today.

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Portable Power Take-off and Stationary Models

Crimp, crack all grains better, faster with less power. AVOIDS DUST. Giant 10-in. Tel-Cast rolls. Farm, Feeder and Mill sizes. Write for literature and prices.

PEERLESS ROLLER MILLS Dept. 501

UNDULANT FEVER VICTIM PROTECTS HIS FAMILY

Gayford Martinson

Gayford Martinson, Mt. Horeb, Wis., contracted Undulant Fever from handling cows. During his long illness he didn't worry about his family getting the disease from drinking milk. "I owe this to one thing," he says, "our Waters Conley Home Pasteurizer. My children got protection, not only from Undulant Fever, but other milk-borne diseases, too."

HAVE DISEASE-FREE MILK with the HOME HEALTH PASTEURIZER this easy way

Automatic

Just turn it on

It does the rest

Can't boil milk or cause "cooked taste". Pasteurizes a gallon at a time in your home. No need to check temperatures or watch the clock. No stirring necessary. Laboratory tested and guaranteed. Accepted for advertising by American Medical Ass'n. Ask your dealer or mail coupon.

FREE FOLDER

WATERS CONLEY CO., Dept. S
Rochester, Minnesota

Please send free folder on milk-borne diseases and their prevention.

Name _____

Address _____

Keep a "4-IN-HAND" always at hand

Because it weighs so little, range riders like to carry the Nicholson "4-IN-HAND" file-rasp in their saddlebags for loose or thrown horseshoe emergencies. Farmers like its versatility for scores of uses in the fields and around the barn and tool shed. For work on hoofs, horns, wood, leather and metals it provides two kinds of file cuts; two kinds of rasp cuts . . . all at much less than the cost of four separate files of similar cuts.

The "4-IN-HAND" is one of the handiest tools in file history! At your hardware store in Nicholson or Black Diamond brand, and in 8", 9" and 10" sizes.

"FILE FILOSOPHY"—write us for this famous 48-page Nicholson booklet. FREE.

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Keep Teat Open
Keep It Healing
Keep It Milking

Scab teats, teats that have been stepped on, cut or bruised—Dr. Naylor's Medicated Teat Dilators provide antiseptic, non-irritating support to delicate lining of teat canal and keep end of teat open in its natural shape while tissues heal. At Drug and Farm stores or by mail postpaid.

H. W. NAYLOR CO.
Morris 16, N. Y.
Large pkg. $1.00 (45 Dilators)
Trial pkg. 50¢ (15 Dilators)

Dr. Naylor's MEDICATED Teat Dilators

Space problem solved

If you're thinking of remodeling your barn or are having space problems in your dairy-calf pens, here's an idea which may give you an answer.

With farmers' cost of buildings and other production items near an all-time high, fullest possible use of equipment becomes increasingly important. That's the view held by Elden Paddock, of Branchport, New York. Paddock wanted to use the maximum amount of space in his sales stable stalls for holding dairy cows. But, of course, the cows have to be fed, and mangers take valuable space.

He solved the problem by building the mangers outside the stalls. He made them so they can be swung up and hooked to make room for the manure spreader in the alleyway.

Paddock has another feature in his barn equipment that you may be able to use. He has five stalls on one side of the barn. He hinged the gates between each stall so the gates can be hooked to the ceiling. This makes a large pen stable arrangement in the barn and adds versatility. Some stalls can be closed, while others are opened for use in a pen-type arrangement. The arrangement can be changed as the needs for pen space change.

Mangers are outside the pens in this barn arrangement. This leaves maximum amount of space for livestock inside stalls

Quick-closing features allow manure spreader to pass along alley. Mangers are hinged at bottom; hooks hold them in place

• • • •

Aureomycin helps calves

Dairy calves fed aureomycin for the first 4 months after birth gained about 25 percent more in body weight than similar calves fed no antibiotic in experiments at Iowa State College, conducted during the past two years.

Dr. Norman L. Jacobson, in charge of dairy-nutrition experiments, further reports that the calves fed the antibiotic ate more feed, were more vigorous, had smoother coats of hair, and scoured less. Calves of the smaller breeds showed a greater response than Holsteins.

It also has been demonstrated that older calves, receiving hay and grain but no milk, grow faster when fed aureomycin. Calves fed the antibiotic during the first 16 weeks gained 2 pounds daily during the next 3-month period when aureomycin feeding was continued. Those not receiving aureomycin after 16 weeks gained 1.6 pounds daily. Calves not previously fed aureomycin gained 2.1 pounds daily when fed the antibiotic from 16 to 28 weeks, while those fed no antibiotic at any time gained 1.7 pounds.

Some of the animals which have been fed aureomycin since 4 days of age are now approaching 2 years of age. No adverse effects on growth or breeding efficiency have been observed.

More information on the level of long-time feeding and on effects of different antibiotics is needed. Thus present recommendations on antibiotic feeding can be only tentative. Jacobson also emphasizes that antibiotics never can be expected to replace good feeding and management practices.—*C. R. E., Iowa.*

• • • •

Bull calf needs attention

Dairymen often pay too little attention to the management and nutrition of the bull calf, believes Dr. Henry Dunn, of the animal husbandry department at Cornell University.

Experimenters at Cornell University checked three groups of 24 grade Hol-

stein bull calves on three levels of nutrition from birth until they were slaughtered. The levels of T.D.N. ranged from a low of 60 percent to a high of 160 percent of the *normal recommended level for dairy heifers*. The normal level was considered 100 percent.

Here are the results to date. Only the high level of feeding can be expected to develop young bulls rapidly enough to prepare them for breeding purposes at 10 to 12 months of age. These bulls would be available for practical use in artificial breeding at 14 to 16 months of age. The normal and low feeding levels are generally inadequate to meet this timetable.

The tests indicated the medium feeding level would prepare the sire for use between the ages of 12 and 16 months. And they indicated that bulls fed the below-normal diet for the dairy heifer would be of little practical value in artificial breeding until they had been fed 20 to 24 months.

To date, there is no indication that any of these feeding levels results in impaired fertility. The best feeding level for fertility could be determined only by continued experiments over a long period of time.

The tests have clearly indicated that the *high* level of feeding produces young bulls that perform better at an earlier age and that are more easily handled than those fed less. Also, the high feeding of T.D.N. produces bulls of excellent physical condition.

• • • •

Accidental antibiotic feeding

Tests carried on during the past three years at the Cornell University Agricultural Experiment Station indicate there is little danger of hurting either the cow or the milk by accidentally feeding commercial feeds containing *recommended* levels of aureomycin.

Enough experiments have been conducted at Cornell to allay many fears as to the dangers involved. Six cows receiving 100 milligrams daily of aureomycin produced the same amount of 4-percent fat-corrected milk as they did during periods when they received no antibiotic. This antibiotic level was within the range of that supplied in swine feeds. No harmful effects on feed consumption were observed during the antibiotic feeding.

As much as 700 milligrams of aureomycin in a feeding supplement was fed in the grain for a period of 10 days, with no appreciable change in feed consumption. Attempts to increase the intake to 1,000 milligrams resulted in refusal to eat grain, while intakes of hay and silage remained unchanged.

It appeared that this amount of the feeding supplement was decidedly unpalatable. This level is about 6 times that normally found in commercial feeds.

No aureomycin has been found in the milk of cows that had received 700 milligrams per day for a period of 10 days. Likewise, cheese starter activity was not depressed in the milk of cows fed 500 milligrams of aureomycin per day for a period of 6 weeks. END

RE-RING BEFORE RE-SLEEVING!

Join the thousands of tractor owners now saving big money by replacing piston rings at the first sign of wear!

It's practical now, with Hastings Chrome . . . revolutionary new piston rings faced with smooth, hard, cylinder-saving chrome . . . rings that last so much longer that it really pays to re-ring without waiting for a complete overhaul.

A simple re-ring costs only about one-third as much as a major overhaul with re-sleeving or re-boring operations. And Hastings Chrome Sets give many times the life of plain rings . . . hundreds of extra hours of service . . . top engine performance and fuel economy. They prevent oil-pumping—and power drop-offs—between overhauls. Many repairmen report *two* successful re-ring jobs before re-sleeving is necessary.

So don't wait! Get your tractor ready for spring. Install Hastings Chrome Rings to keep costs down, to keep power up, to stretch engine life and preserve its efficiency.

(Hastings Rings are Motor Engineered for *replacement* service, for every make and model of car, truck or tractor!)

FREE FARM RECORD BOOK—WRITE DEPT. SF

HASTINGS MANUFACTURING CO., HASTINGS, MICH. (HASTINGS LTD., TORONTO)

Piston Rings, Spark Plugs, Oil Filters, Coolts, Dryol

HASTINGS

TOUGH on oil-pumping

GENTLE on cylinder walls

A THOUSAND YEARS FROM NOW

Friends, a thousand years from now people will continue to greet each other with these two simple words: "Merry Christmas." That's because the spirit of Christmas is eternal; its spiritual quality is above and beyond disasters that shake the souls of men; above international situations that keep one's nerves on jittery edge; above sickness, worry, poverty and failure. Yes, friends, the spirit of Christmas never dies, so our sincere wish is that your hearts overflow with the spirit of Christmas. Good wishes to every one of you and a Happy New Year to the whole world: "Peace on earth, good will towards men."

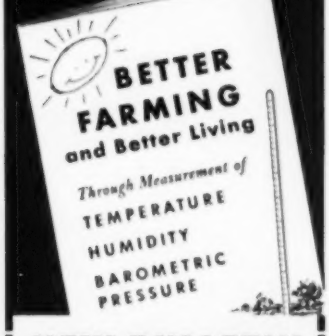
PILOT BRAND OYSTER SHELL

FOR POULTRY

OYSTER SHELL PRODUCTS CORP.

New Rochelle, N. Y. St. Louis, Mo.

FREE!



NEW BULLETIN

TELLS HOW TO INCREASE FARM PROFITS

Taylor Instrument Companies,
95 Ames St., Rochester, N. Y. Dept. N

Please send me "The Effect of Weather on Farm Profits". I am interested in:

☐ Fruit ☐ Poultry ☐ Dairy
☐ Cattle ☐ Grain ☐ Produce
☐ Homemaking . . . Other . . . . . .

Mr. . . . . .
Mrs. . . . . .
Address . . . . . .
City . . . . . State . . . . . .

Automatic feed-grinding system

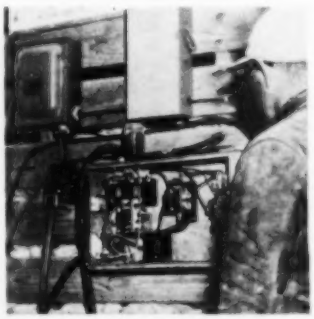
From page 51

hammer mill. The capacity varies between 1,000 and 1,800 pounds per hour. Perhaps small equipment makes grinding feed sound time-consuming, but remember, this equipment will operate automatically for longer periods of time while grinding smaller amounts. Since it's automatic, you'll actually save time because you won't need to be around while the grinding's being done. You can do other chores. Other advantages are that you don't need to come in from the field early to use the tractor for grinding, you don't have to use your own labor to satisfy the appetite of the larger hammer mill, and since you'll grind smaller amounts, more often, the ground feed will have little opportunity to heat and become stale in storage.

There are many arrangements that can be used to set up automatic feed grinding. Probably you'll have to decide for yourself which is best for your own farm and needs. What *every* farmer needs is a "thinking" mechanism that will:

1. Start the booster blower before the mill when grinding begins and stop the mill before the blower to clear the pipe when grinding stops.
2. Stop the grinder when enough feed is ground.
3. Control the conveyer system so that the mill operates at near capacity and is not overloaded for long periods.
4. Start an ear-corn agitator when the mill runs empty.
5. Stop the whole operation when dangerous overloading exists on any of the motors, when the drive between the grinder and its motor fails or the supply of any one of the feed ingredients is interrupted because of clogging, serious bridging, or being used up.

This may sound complicated to you, but no gremlins or fabulous mechanical attendants are necessary. All the mechanics are controlled by a special control box after you've pushed the starting button. It's not a box full of radio tubes or electronic circuits, but it does consist of simple power circuits that are under-



Control panel contains simple power circuits. It looks complicated, but repairing usually can be done by local electricians

...and visions of MILK-BONE danced through his head!

Give your dog the perfect Christmas present — a big box of MILK-BONE Dog Biscuits! Fun to chew—good for him, too. He needs MILK-BONE.

MILK-BONE products contain nutrients your dog needs: Vitamins A, B_1, B_2, D and E . . . Meat Meal . . . Milk . . . Fish Liver Oil . . . Wheat Germ . . . Whole Wheat Flour . . . Minerals . . . Chlorophyllin.

Guaranteed by Good Housekeeping

NATIONAL BISCUIT COMPANY

SOLVES DEEPWELL PROBLEMS

ALLIANCE, NEBRASKA—L. F. Powell was looking for two things in a vertical turbine pump and apparently he found them. He says:

"I talked with other owners of Worthington pumps and found they couldn't be beat. That's why I 'went Worthington.' Also, this Spring I asked for an efficiency check on my Worthington pump and it wasn't no time until the Worthington service people were out. I call that real service. My pump works as if it was built and designed especially for my well."

Ask *your* Worthington dealer to show you the chart that proves *only* the Worthington Vertical Turbine Pump—in the newest and broadest line available—gives you all 8 "service-sure" features. Worthington Corporation, Denver 16, Colo.; Succasunna, N. J.

D-2-2

standable by many farmers and almost any electrician. The panel can be serviced without being removed with help available locally.

When you press the starting button, you won't hear gears grinding, conveyers slapping, or howling motors. Only the booster-blower motor starts. It clears the pipe of any moisture accumulation and ground feed. A thermal time-delay switch turns the 5-hp motor on after 30 to 60 seconds. After the grinder revs up to operating speed, the conveyer system starts. In this way the starting of motors is staggered so fuses don't blow or circuit breakers don't kick out.

The device that stops the conveyers is an overload switch. It's really the heart of the automatic feed-grinding operation. When the grinder is overloaded, due to too-rapid feeding, the motor draws more than normal current. The overload switch stops the conveyer system and does not allow the grinder to be fed. When the grinder has cleared itself and is up to speed again, the amount of current to keep it running is much less than the amount required to start it, and the conveyers are started.

A safety device stops the grinding operations whenever the supply of feed ingredients or the belt between the motor and grinder fails. In either of these cases, the grinder motor operates at an *underload* or low current demand, and an underload switch shuts off the entire setup after a predetermined length of underload operation time. A motor-controlled time clock keeps track of the length of underload time. Since short-time underloads are normal in the grinding operation, only the long-time underloads—1 or 2 minutes—indicate to the underload switch that the units need to be shut off.

A time switch shuts the grinder off when the quantity of feed is ground.

Several companies are interested in the commercial possibilities of the Illinois automatic feed-grinding unit. Should one or more of them decide to produce a unit, the present price of $1,000 to $2,000 per complete unit may be reduced. In the meantime, plans of the grinding arrangement and crib-drag-conveyer installation may be obtained for $1 from the University of Illinois, Urbana, Illinois.

Magnet at the end of the ear-corn drag "catches" pieces of metal—bolts, wire, and so forth—before they damage mill. END

BOOSTS PRODUCTION 3 WAYS!

1. SHARPENS BIRDS' APPETITES — Peebles' Free Choice Feed keeps them at the feeders . . . actually whets appetites so birds eat more, produce more eggs during winter market months.

2. IMPROVES FLOCK CONDITION — the whey and whey products of Peebles' Free Choice Feed guard the health of your flock by keeping digestive systems toned up. Peebles' helps to keep birds peppy and bright-eyed . . . lessens disease hazards.

3. GIVES NEEDED NUTRIENTS — Important milk protein, milk minerals and vitamins in Peebles' supply natural, egg-building nutrients that hard-working layers need for top production. Peebles' is so easy to feed . . . costs so little for the job it does! Try it and see for yourself.

Gives "Milk-Fed" Results

Write Appleton, Wis., for Free Folder B-12

Peebles'
FREE CHOICE FEED
WESTERN CONDENSING COMPANY
Appleton, Wis., and San Francisco, Calif.

Raise big, husky calves on Peebles' CALF-KIT—the ideal Milk Replacement.

Decorating advice. Stores offering **Successful Farming**'s home planning service are listed on page 69. Visit store nearest you for help with decorating problems.

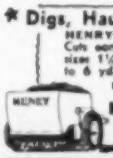
SEWAGE BREEDS DISEASE

Eliminate Smells and Troubles from Outdoor Toilets, Cesspools and Septic Tanks with Enzymatic . . . the revolutionary multiple-enzyme powder eliminates odors, liquefies and digests solids. Start your protection with $1.50 can . . . complete with instructions. If dealer can't supply, send postpaid by

N. O. NELSON CO.
P. O. Box 3265 DEPT. A-12
ST. LOUIS 1, MISSOURI

MONEY-BACK GUARANTEE
If not entirely satisfied

★ Digs, Hauls, Dumps, Spreads
HENRY HYDRAULIC SCRAPER
Cuts earth moving costs! Available in sizes 1½ & 2 yard capacity. (Others to 6 yd.) All steel construction. Fully guaranteed.
Send for FREE folder.



HENRY MFG. CO., Inc.
1787 North Clay St.
Topeka, Kansas

DOUBLE the POWER OF YOUR FORD Tractor!

You can pull a 3-bottom plow with ease when you equip your Ford Tractor with a 95 h.p. 6-cylinder or a 100 h.p. V-8 Ford engine! Install it yourself or have your dealer do it, on your old or new tractor, with our change-over kit. The conversion costs about ⅓ as much as most 3-plow tractors. Fast, powerful, dependable. Write us TODAY, or have your tractor dealer do it.

FUNK AIRCRAFT CO.
ROUTE 5-F COFFEYVILLE, KANSAS

EASE COLD MISERY

AT ALL DRUG STORES
45¢ and 75¢ SIZES

Take Tabcin

TRACTOR CONCRETE MIXERS

It's fun to do concrete work with a Frohring Redi-Mixer! They do more cost less go any place your tractor goes. Load mixer any place, deliver ready mixed concrete direct to forms. No wheelbarrow needed. Model illustrated for Ford or Ferguson tractors. Models for other makes and for gasoline engine or electric motor operation. Write for FREE information, give make and model of tractor. R. L. Frohring Machine Co., Box 144, Chagrin Falls Ohio.

DRAINS Cellars, Cisterns, Wash Trays; IRRIGATES Your Garden, etc.

ORIGINAL "Type P" Pump has 1,000 gear mounted cams. Insure garden farm. Pumps 400 GPH, 800 GPH 75 high, or 1500 GPH from 25 well. Use any ¼ to ¾ HP motor. 1" intake, ¾" outlet. Motor mounting included.

DOES NOT CLOG!

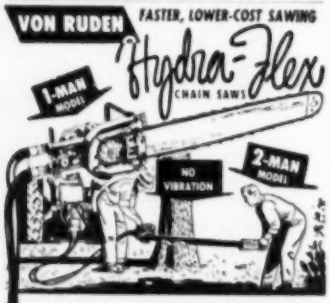
Postpaid if cash with order. (West of Miss. add 30c.) Money Back Guaranteed.

Also Gear Pumps in all sizes.

LABAWCO PUMPS $6.95
Belle Mead 33, N. J.

VON RUDEN FASTER, LOWER-COST SAWING

Hydra-Flex CHAIN SAWS



USE POWER YOU ALREADY HAVE!

Heavy-duty, 50 g.p.m. pump attaches to power take-off of your farm tractor. Hydraulic hoses let you work large circular area, saw at any angle, ANYWHERE!

LIGHT WEIGHT, POWERFUL! 12 H.P.

Bigger capacity, more power! Saws 30" log in thirty seconds. Convenient control on both models instantly stops, starts saw. Choice of cutter bar lengths.

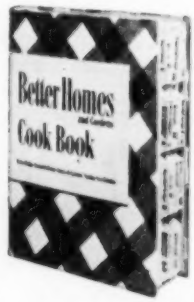
IF YOUR DEALER CANNOT SUPPLY, WRITE DIRECT

WRITE for FREE FOLDER

Hydra-Flex INC.
24 FRONT ST. · CLAREMONT, MINNESOTA

Better Homes & Gardens

Cook Book



For fall . . . a big complete section on food canning and freezing. Hundreds of recipes. All taste-tested in *Better Homes & Gardens* kitchens. $2.95

A merry Christmas!

From page 52

top edge of strip. Fold tape to outside and stitch down to make drawstring casing. Drawstring is made of two 17" lengths of bias tape, joined on opposite sides of casing. Snip two holes in casing opposite each other and whip edges. Thread one drawstring through casing in one direction, second in opposite direction. Join strings and knot ends.

Polka-dot apron. Cut two strips of fabric. The top is 36"x11", the ruffle strip is pieced to measure 56"x8". Cut two pockets, 5"x5½". Pleat in 11" from each side of top strip. This divides easily into six pleats. Each side measures 5" when finished. Gather top of second strip and stitch it to unfinished length of top strip. Finish this edge with bias binding. Baste and stitch pockets in place over pleating on top strip. Attach eyelet trim to pockets and lower edge of apron. Waistband is 4½" wide, measures 2" finished. Apron ties are 28" long, 4" wide finished.

Dotted-swiss apron. Cut front of dotted swiss, 30" wide, 17" deep. Cut strips of contrast for ruffle to measure 5" wide, 84" long, when pieced. Finish ruffle along both edges and add it to apron front, stitching along line 1" in from ruffle edge. (This gives inner-ruffle effect.) Now, gather in 17" from each side of apron top and pull gathers to measure about 7". Attach waistband and ties.

Eyelet apron. Apron front is made from piece 32" wide, 21" deep. Starting with one edge of width, gather in 11" from each side. Pull gathers to about 5" and secure. This is apron top. Round corners of lower edge and finish with lace as pictured. Add pockets 4" square. Dress each up with lace trim and pert little bow of ¼" velvet ribbon. Stitch on apron band and ties to measure.

Candlesticks. Cut strip of heavy metallic paper to enclose paper milk carton. Cut it 1" longer than carton. Secure with staples or tape. Ready-made Christmas candles will fit into holders. Or, if you prefer, make your own, using cardboard carton same size as base for mold.

Bathroom set. Wastebasket cover is from a single towel, bath size. Simply fit towel neatly around basket and pin in place. Trim surplus, allowing 2" extra both top and bottom and 2" overlap. Remove from basket, turn edges under, and stitch to form ¾" casings. Draw elastic through casings and gather towel on it slightly. Stitch ends of towel to form tube. This will slip snugly over basket, may be removed for easy laundering.

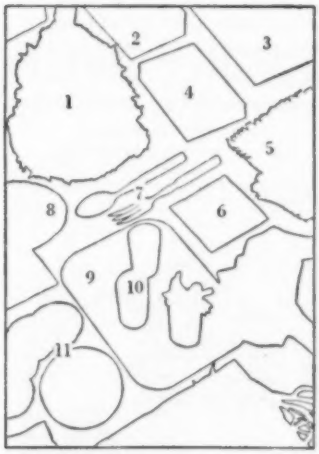
Silver cases. These are simple to make. Merely cut rectangles of flannel three times length of silver to be fitted, wide enough to allow 2" for each piece. Bind all edges with bias binding. Use different color for each type utensil. Now fold one

length up, envelope-fashion, and join edges. At 2" intervals stitch down to give compartments for each piece of silver.

For springerle roller and spoon set, you can add a whirl of inexpensive glamour by decorating handles with bright-colored enamels. The simplest designs are the most effective.

Lingerie cases. Quilted plastic, available by the yard, makes this quick-stitch-up pair. Cut strips two and a half times desired depth of case. Round one end for flap. Bind edges with bias binding and fold into envelope.

Terry scuffs. Trace sole on piece of mattress padding or purchase inner soles from dimestore. Cover with terry cloth and baste in place. Quilt on machine. Top of scuff is made of three thicknesses of terry cloth, quilted and cut to shape across instep. Pleat to fit at toe. Stitch top to sole and bind edge with tape. Three loops of matching tape serve as holders for rope laces (see photograph). Slippers tie on sandal-fashion.



Christmas gifts shown in the full-color photograph on page 53 are outlined in this diagram. You will find directions for making them in the paragraphs that follow

Centerpiece (1) is made from three angel-cake pans of graduated sizes, set on large, round tray. Center "trunk" is simply tube of cardboard. Paint cake pans and pack with greenery and Christmas candies.

Christmas packages. Let your imagination go and you'll have fun decorating parcels. A few ideas to start you off: (2) For the little miss, hair ribbons make gay, special ties. She'll love to save them for dress-up wear later. (3) A gift to one who sews, using spools of thread attached to the ribbon ends. A blouse length of material makes a novel wrapping here, too. (4) Tissue-wrapped gift is dramatic with stick-candy candles, peppermint flames.

[*Turn to page 106*

ES-MIN-EL

SOIL APPLICATION

ES-MIN-EL is now available in spray or dust form. If you haven't mineralized your soil, you can now feed these essential minerals to your plants through the leaves and stems — ES-MIN-EL spray or dust is a neutral form of Copper, Manganese and Zinc.

FREE BOOKLET — Send card or letter to Tennessee Corporation, Grant Bldg., Atlanta, Ga., or Lockland, O.

REQUEST

that your local fertilizer dealer furnish you a completely mineralized fertilizer containing the essential mineral elements!

And just as they both belong in a well balanced farm program, so do minerals and fertilizers belong in your soil if optimum crop production is to be achieved. Soil poor in minerals cannot produce crops rich in vitamins. ES-MIN-EL contains these mineral elements—Zinc, Manganese, Boron, Copper, Iron and Magnesium, all essential to healthy plant growth and increased crop yield . . . Your crops are as good as your soil . . . good soil must have the proper mineral balance. ES-MIN-EL contains the essential mineral elements . . . For increased yield of vitamin-rich crops, mineralize your soil with ES-MIN-EL.

TC

TENNESSEE CORPORATION

Atlanta, Georgia Lockland, Ohio

Underwear *itch?* Switch to Duofold, the modern two-layer underwear that's *light* as you like it, *warm* as you want it—outdoors or indoors. It *can't* itch—all the wool is in the outer layer—only soft cotton next to your skin. Shrink resistant, too—launders easily. In union suits, shirts, "longies," all popular models and weights for the whole family . . . ski wear in Sun Valley Red. At better stores everywhere. **Duofold Inc., Mohawk, New York.**

KOHLER ENGINES

4-Cycle, Air-Cooled

Reliable power for garden tractors, elevators, portable saws, sprayers, concrete mixers, pumps and a wide range of other farm and industrial uses.

Engineered and built to the quality standards that have won acceptance for Kohler Electric Plants the world over.

NATION-WIDE SALES AND SERVICE

Kohler Co., Kohler, Wis. Established 1873

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PLUMBING FIXTURES • HEATING EQUIPMENT
ELECTRIC PLANTS • AIR-COOLED ENGINES
PRECISION CONTROLS

HELPFUL SUGGESTIONS for solving all types of farm problems are found in each issue of *Successful Farming*.

TAKE CARE of YOUR STOCK!

For healthy gains all livestock and dairy cattle must drink plenty of fresh water all winter. Supply it for them with

SIEBRING

Automatically BETTER GAS & ELECTRIC TANK HEATERS

See how easy it is with an automatic gas or electric heater—Siebring makes them both: oil and coal burning models, too! Select the type that best fits your needs.

SEE YOUR DEALER OR WRITE TO

Siebring MFG. CO.
Dept. SF GEORGE, IOWA

A merry Christmas!

From page 105

Attractive lunch set (5) is made of burlap, monk's cloth, or any loosely woven material. Cut to place-mat size. For colorful band trim, pull threads at intervals and weave in strands of embroidery floss. Now, stitch round entire mat, 1" in. Fringe fabric to the stitching.

Hot pad (6) for the table is nothing but a tile or square of $\frac{1}{4}$" wood, slipped into a fabric envelope. Appliquéd design perks it up; gay peasant fabric is another idea.

Inexpensive salad set (7) comes to life with simple bands of bright-colored enamels.

Basket-napkin set (8). Make basket lining from a colorful print. Simply cut circle $\frac{1}{2}$" larger all around than bottom of basket. Cut side strip, binding one edge with bright tape, joining other to bottom circle. Cut and hem 14" square matching napkins to complete the set.

Decorative tray and glasses (9, 10). A stroke of the paintbrush adds your personal touch to a plain metal tray. Special paints for china and glassware will pep up the most inexpensive set of glasses, too; make them something extra special.

Gay china guards (11) are merely circles cut from polka-dot flannel. Pink edges for decorative finish.

Santa wreath hanger

From page 29

6. Cover arms with strips of red. Sew together on back of cardboard cover. Paste on Santa's beard, large one on the bottom

Next, paste on mouth, face, mustache, hair, eyebrows, hat and trim, cuffs, and hands. Cover back in red. For eyes, use white circles, black buttons in the center

7. Make a wreath of evergreens and attach it under the hands to the coat hanger, and it's ready to hang on your door to greet guests with a warm "Merry Christmas"

"PROTECT YOUR HOME AGAINST SOOT FIRES all winter long!"

Safe soot protection for as little as 3¢ a day

Cleans out dangerous, heat-stealing soot from furnaces, chimneys, flues, and stoves like magic!

Cuts fuel bills!

POWDER for coal, coke, wood • LIQUID for oil, kerosene

CHIMNEY SWEEP

at hardware and department stores

Accept No Substitutes

G. H. Coughlan Co., W. Orange, N. J.

Business firms—write Successful Farming for details about classified advertising.

MILKING MADE EASY WITH AMAZING NEW CATTLE GENTL-IZER

Now, you can safely quiet the toughest cow in your herd with the Basler CATTLE GENTL-IZER, a new scientific invention. Cow just can't kick when CATTLE GENTL-IZER is applied! Prevents damage to milkers, clippers, and milk utensils . . . less milk is lost because of spilling or mistreatment of nervous cow. "Milk Veins" not affected by the gentle pressure that prevents cow from moving its hind legs; causes no injury or discomfort to cow.

Easy to put on, no chains, no danger. Saves you and cattle from serious injury. Safe, humane, used and recommended by many veterinarians for udder treatment. Farm-tested on thousands of farms.

Fits all cows. Strong, lightweight, scientifically balanced. Specify breed and size when ordering.

Try it for 10 days at our risk; money refunded if not fully satisfied. Order from this ad or send for descriptive literature and simple instructions.

PRIDE HYBRID CO. Dept. SF-3 GLEN HAVEN, WIS. ONLY $12.95 (POSTPAID) DEALERS AND AGENTS WANTED!

Building a fence on the contour

Two big problems are involved when building a fence on the contour: (1) how far apart to set the posts; and (2) how much tension or pull is needed when stretching the fence. The chart below shows recommended post spacings:

Distance of center stake to string	Recommended post spacing
Inches	Feet
4 or less	16½
4-5	15
5-6	14
6-8	12
8-14	10
14-20	8

To stretch the wire, fasten the end of the roll to the end post and roll the wire out on the ground along the fence line. Pull the wire up by hand until it clings up against the fence posts. Attach stretchers and pull wire to proper tension. Stretch to only a moderate tension, as a curved fence needs much less tension than a straight fence. Maximum tension used in experiment was 1,300 pounds, which is approximately two-thirds of the tension usually applied on straight fences. The sharper the curve the less tension should be applied. On sharp curves it may be necessary to stretch in 10-rod sections; otherwise, 20- to 40-rod stretches are satisfactory. **END**

Cheap chickens often expensive

Start looking now for a source of next year's chicks. Breeding back of the chicks you buy can be the difference between profit and loss. Unless you place your order now for the breed of chicks you want, you may have to take some of unknown breeding.

Such was the experience of Ancil Hethcox, Sevier County, Arkansas. Half of his 200 broilers were quality Barred Plymouth Rocks, the other half were of unknown origin. The Barred Plymouth Rocks cost 14 cents each; the other chicks, 8 cents.

Hethcox says all the chicks received the same feed and care. The big pay-off came when the two lots were marketed at 12 weeks. The broilers of the unknown breed lost him $5, while the Barred Plymouth Rocks showed a profit of $40.

NEW CLAY COMFORT STALLS

WILL RAISE MILK PRODUCTION 10% AND WE CAN PROVE IT

Jos. B. Clay President

Actually pay for themselves in . . . (1) More milk per cow; (2) Prolonged yearly high milk production; (3) Longer Productive Life, helps to get 1 to 2 more lactations; (4) Keep cows surprisingly clean; (5) Minimum bedding waste. Milk production records absolutely prove no other stall can equal the COMFORT STALL IN THESE RESPECTS.

• COWS REST LONGER

I. D. Porterfield, of West Virginia Agricultural College, states in HOARD'S DAIRYMAN, "The cows in the larger stalls spent an average of 2 hours and 6 minutes more per day lying down than those in the smaller stalls."

Also, he stated, "Cows produce from 12 to 97 lbs. more milk per week. Only one animal produced slightly less."

NO SKINNED KNEES—CUT OR BRUISED UDDERS. Tests show up to 70% less injuries.

1 SAVES FEED . . . Rails over manger stop throwing out feed.

2 CLEANER COWS . . . Animals lie forward of stop bar (optional)—out of manure—save bedding.

3 CLEANER COW BED . . . Rails over manger cause cow to move back. Droppings seldom occur where cow lies down.

4 NO FEED STEALING . . . Partition extending over manger prevents stealing feed or annoying neighbor cows.

5 EXTRA WIDE STALLS . . . Room to lie down with comfort. Curbs prevent udder injuries. Plenty of room for milking machine and operator.

Plan ahead. Let your cows give you maximum milk production . . . make you more money. Send for valuable information. Act now! See how easy it is to put CLAY COMFORT STALLS in your barn.

FREE CATALOG—MAIL TODAY!

CLAY EQUIPMENT CORPORATION
1226 Road Street, Cedar Falls, Iowa

☐ COMFORT STALLS ☐ BARN VENTILATION
☐ BARN WINDOWS ☐ STALLS AND STANCHIONS
☐ NEW MILKING PARLOR STALLS ☐ BARN CLEANERS
☐ STEEL GATES ☐ HAY AND CORN DRIERS

I have _____ cows I am building ____ I am remodeling ____

NAME _____
TOWN _____
STATE _____ RFD _____

See your Field Service Man

The Successful Farming Field Service Man is especially welcome as a caller these days.

Make it a point to see him. And, ask him to show you a copy of "*A Better Living From Your Soil.*" He can show you how it helps you to do better farming and enjoy better living, how to better profit from your farm, and how future articles in Successful Farming will keep you posted on the latest developments in soil care.

SUCCESSFUL FARMING FIELD SERVICE MAN

Last-minute

BUY DIRECT—SAVE

FACTORY DISCOUNTS UP TO 85%

Portable LIGHT PLANT
PUSH BUTTON START

(Item 34) 600 to 700 watts (110-120 v. — 60 cycl. A.C.). Powered by a sturdy dependable, easy starting, air cooled 1½ hp. gas engine. No wiring necessary. Just plug in and operate. Ready of current for use of lamps, freezer, blender, pump, emergency lights etc. which require up to 700 watts. Ideal for Civil Defense, Fire Depts. trailers & camps. Complete with Voltometer and light to indicate charge of 6 v. auto batteries. Wt. 85 lbs. Fully guaranteed. **Be prepared if war or storm knocks out power lines.** Reg. $275.00 value **$143.50**

All sizes up to 5000 watts. You can pay more—but you can't buy better!

Buy Wholesale—Direct from Factory
World's Largest Direct Selling Light Plant Factory

HEATING & VENTILATING FAN

(Item 10) Easily installed in furnace pipe. Forces even heat to all rooms. Over range, removes kitchen smoke and odors. Powerful continuous duty motor, 110-120 V. A. C. Quiet, super efficient fan moves large volume of air (400 to 600 c. f. p. m. Fan wt. 5 lb. $49.95; 2 in. Fan wt. 6 lbs. $7.45; (12) Fan wt. 7 lb. $8.95; (12 in. Fan wt. 6 lbs. $9.95

Heavy-duty 12" fan, enclosed motor, suitable for farms and poultry houses. Wt. 12 lbs. Item 1410 ..... $63.95.

EXTENSION CORD

(Item 16) 40 ft. heavy duty, made of specially insulated No. 14 2 conductor wire. So tough that you can drive over it and yet flexible and easy to handle. Resists oil, grease or water. Extends electricity up to 800 ft. without voltage drop. Use indoors or out. Complete with heavy rubber plug and outlet. Wt. 22 lbs. (Usually $4.50) Sale price $2.95

40 ft. $1.00; Comb. 2-40 ft. and 1-20 ft. (total 100 ft.) $4.95
100 foot length (one piece) $4.95

32 pc. SOCKET SET

(Item 4) Highest quality gear, non-breakable sockets made by Hacker. Beautiful, polished chrome steel. Absolutely the best. Complete range of 31 sockets from ¼ in. thru 7/16 in. ¼ in. drive and 7/16 in. thru 1 1/16 in. ½ in. drive. 2 extensions, reversible ½ in. ratchet, adaptor ½ in., slide head, all angle swinging 2 end wrenches, ½ in. speeder handle and sturdy metal tool box. For professional mechanics who want the best. Wt. 14 lbs. Really worth $41.50. While they last. $16.95

CARRY-AIR

(Item 22) Stainless steel tank—capacity 500 cu. in. at 600 lbs. press., complete with inlet and shutoff valves, press. gauge, de-lubricate air hose, tire chuck. Fill at any service station. Carry air for tire inflation, blowing out lines, spray painting, insecticides, etc. One emergency pays back cost. Wt. 16 lbs. Worth $29.95. Our price $8.95
(Item 16) With big double tank (1000 cu. in.) $11.95
(Item 16) Tank only, 500 cu. in. (no fittings) $6.95

Send 10c for Big Factory Catalog. Free with order. Prices f.o.b.
Money back guarantee. Send check or Money Order.

Master Mechanic Mfg. Co., Dept. 348, Burlington, Wis.

THIS TRIPLE WALL BRACKET WILL ADD BEAUTY TO ANY HOME

Bracket will not interfere with window curtains or blinds. Arms swing to any position or lift out of mounting. Plants will not move straight. 3 3/4"x6" pot holders of 15 gauge steel, welded to steel arm. 7" deep 20" wide, 5" high. Sparkling gold finish. $2.95 postpaid. Free folder on flower stands.

TROY PRODUCTS CO., 252 Moser St., Greeneville, Tenn.

A Christmas Treat!
Kitchen Fresh! Joy candies

HOLIDAY Assortment

Luscious fresh creams, nougats, rich fudge and caramels, fondants, chips—23 taste thrills in all. Beautifully wrapped.

SPECIAL! 2 LB. BOX $1.98

NEW! DIFFERENT! DELICIOUS!
LAZY SUSAN Assortment

Kitchen fresh goodness in a permanent re-usable revolving tray! Choose red, bronze, green or clear plastic.

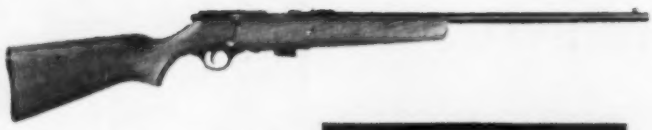
2½ lbs. only $3.39

—JOY CANDIES, Dept. SF 12—
1314 W. 74th St., Chicago, Ill.

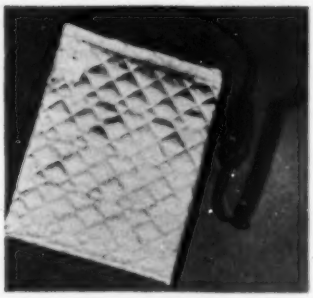
Send me your delicious Joy Candy selections to arrive for the Christmas Holidays!

——boxes 2 lb. HOLIDAY ASST. $1.98 ea. plus 45c ea. wrapping & postage.
——boxes 2½ lb. LAZY SUSAN ASST. $3.39 ea. plus 50c ea. wrapping & postage.
C.O.D. Fee Additional

NAME _____
ADDRESS _____ ROUTE NO. _____
CITY _____ STATE _____
SHIP C.O.D. _____ CHECK OR M.O. ENCLOSED _____

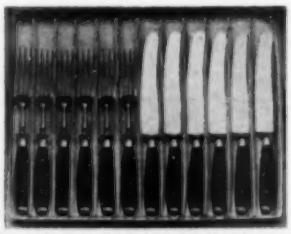


A .22 caliber repeater rifle—ideal for sons or husbands. Marlin Model 80-C has 8-shot clip magazine. Can be bought in hardware and sporting-goods stores for about $24.95



Heating pad—electric 'n' wetproof. Comes in pink quilted cover. Has 3 fixed heats. Sells at $8.95, postpaid.—*The Walker Company, Inc., Middleboro, Massachusetts*

Automatic coffee percolator by Arvin has control for strong or mild brew. Makes 3 to 9 cups, keeps it right temperature. At electric-appliance departments, priced at about $29.95



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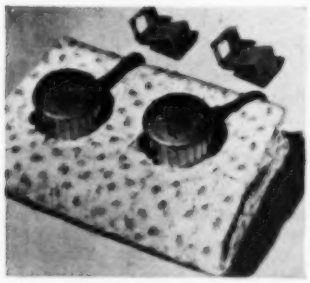

Electric sheet, washable broadcloth with rosebud pattern. Model pictured has dual heat controls in "powder-box" cases. At Westinghouse dealers. Costs about $39.45

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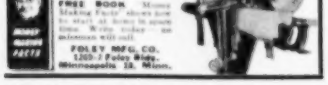

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1. The names and addresses of the publisher, editor, managing editor, and business managers are:
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Editor: Kirk Fox, Des Moines, Iowa.
President: Fred Bohen, Des Moines, Iowa.

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5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semiweekly, and triweekly newspapers only.)

R. G. Wright
Treasurer

Sworn to and subscribed before me this 29th day of September, 1952.

Grace Brackney
Notary Public in and for Polk County, Iowa.
(My commission expires July 4, 1954.)

High doorsill caused losses

Not long ago we visited a farm where several of the ewes had aborted their lambs. The owner was afraid some kind of contagious disease was involved. However, it turned out a high doorsill was to blame for the trouble. The heavy ewes had to scramble over it every time they entered their shed, and their bellies were bruised considerably. Building a ramp over the sill ended the abortions.

• • • •

Ringworm lives over in pens

Remember the pen where calves had ringworm so badly last year? The same trouble will probably crop up there again this winter if you aren't careful. Ringworm is due to a type of fungus which is capable of "holding over" for long periods in dark and dirty calf pens. Better clean up any possible seedbeds of the trouble.

Clean up old dried filth in the pens and then scrub the pens with some kind of a disinfectant solution. Lye water or most of the common "dips" do a good job.

• • • •

"Calf paralysis" before calving

Owners usually think of so-called "calf paralysis" as trouble which follows calf birth. However, it often occurs several days or even several weeks before freshening time. This sort of thing is caused by the calf's getting into a position so that it presses on one or both of the big nerves found on each side of the pelvic cavity. Affected animals usually recover shortly after the calf is born.

• • • •

What's the trouble here?

The pig shown on page 113 was first noted as appearing somewhat stiff and lame. It was affected with a diarrhea, although it continued to eat normally. On the following day it was down and unable to stand. It panted for breath, frothed at the mouth, and had a fever of 107 degrees. The ears were swollen and red blotches appeared on various parts of the body. To make matters worse, some of the other pigs showed signs of being sick, too. Similar symptoms indicate such troubles as influenza, erysipelas, cholera, enteritis, pneumonia, poisoning, and various other disorders. What's the trouble here?

In this case it happened to be erysipelas, a contagious disease caused by a germ called *Erysipelothrix rhusiopathiae*. It is usually contracted by swine eating or drinking

[*Turn to page 113*

Farmer's Trading Center

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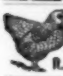

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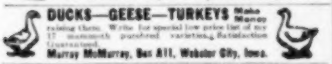

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Veterinary helps

From page 110

infected material, but germs can also enter the body through skin wounds. Outbreaks often follow garbage feeding or turning swine into infected premises. Other times the disease is brought on the place through the purchase of sick or recovered "carrier" animals.

This is the same disease that affects turkeys, and man also is susceptible to it. For this reason rubber gloves should be

Photograph: Bailey

worn by anyone handling possible cases of erysipelas.

The most satisfactory treatment consists of injecting anti-swine-erysipelas serum in recommended amounts. Penicillin is often used in combination with the serum. Isolate sick animals and check the balance of the herd for new cases. Vaccination with various products is fairly effective in preventing erysipelas, but a state permit is often required for the use of those containing living germs.

• • • •

Keep sheep and cattle apart

There are several good reasons why sheep and cattle should not be allowed to run together. Recently a sick ewe reminded us of another one. The ewe was little more than skin and bones in spite of having been on good pasture since early spring. The trouble was caused by Johne's disease, an ailment which can be transmitted from sheep to cattle or vice versa. Both sheep and cattle rate separate pastures as a preventive measure.

Hormones

increase gains of beef cattle

Stilbestrol and progesterone, two hormones that have started milk flow in sterile cows, are being tested as growth stimulators in beef steers at the Michigan Agricultural Experiment Station.

The two hormones were implanted in the necks of 8 steers from the Michigan State College herd. Preliminary results indicate such implantations may boost average daily gain made by steers on alfalfa-brome or bluegrass pasture.

Four groups of steers are on test. Each group contains 4 steers of nearly equal weight and type. Two groups were treated with the hormones stilbestrol and progesterone and the other groups were retained as control groups and not treated. Two groups were put on alfalfa-brome pasture; the other two went on bluegrass. No grain was fed.

At the end of 81 days, the 4 implanted steers on alfalfa-brome pasture made an average daily gain of 2 pounds. The control group on alfalfa-brome gained only 1.45 per day.

The 4 implanted steers on bluegrass averaged 1.76 pounds per day and the control group of nonimplanted steers gained 1.55 pounds per day.

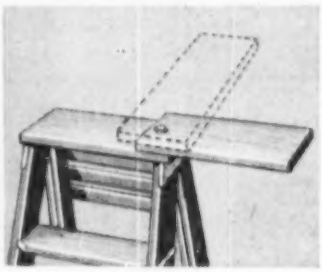
Combining the results, the 8 implanted steers averaged 1.88 pounds per day while the average daily gain for the 8 control steers was 1.50 pounds.

Additional tests planned at Michigan State College include a study of the effects of hormone implantations on gains made by steers fed ground corn on pasture and a study of carcasses from the treated animals.—*Howard Hass.*

All around the farm *A page written by our readers*

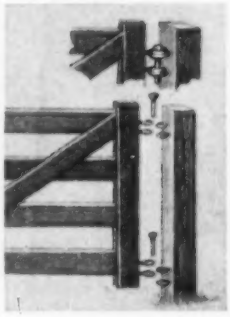
An old tractor seat was used to make a first-class stool for my shop. I welded a 2" steel pipe to the underside of the seat and the other end of the pipe I welded to the center of the convex side of a large disc. Any steel seat can be used which provides a base for welding. While a 24" height for the seat fits most needs, this is something that can be decided according to the needs in the individual shop. In fact, two or three of these may be handier at various heights.—*A. F. S., Nebraska.*

I double the space on top of a step-ladder, handy for holding tools and supplies while working, by adding a shelf, which swings out of the way when not in use. Cut from a board to



the size of the ladder top, the shelf is pivoted with a bolt and nut, and two large washers. The washers are placed between the board and the ladder top to allow it to swing freely.—*H. C. L., Nebraska.*

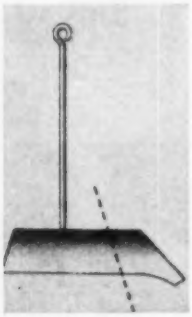
Before junking my old grain binder, I took the twine box off and nailed it on the feed-room wall near the feed grinder. I also placed a mower section about 15" from the twine box. Now I never have tangled twine and can cut it the desired length with the mower section. The box is also fixed with a handle so I can carry it when tying shocked fodder.—*W. C. E., Indiana.*



I use screw eyes in the post and in the end of the gate instead of hinges on light gates. Use two screw eyes about 1" apart in the post where hinge should be and two in the end of the gate at the same level. A bolt is used for the pin when screw eyes are used on both ends of gate. It may be opened at either end and if hung so ends of two gates meet, they may be used to close a double-width opening. I use heavy screw eyes on light gates, and eyebolts on heavy gates.—*W. O., Pennsylvania.*

To keep from marring plated or polished pipe when using pliers or wrench, I cover the jaws of the tool with strips of sheet lead. If such lead is not available, a piece of solder can be hammered out for use as a substitute. Or, if neither of these is available, I use regular wire or coil solder. To use it, I wind solder around the work where the tool is to be applied.—*J. K., Ohio.*

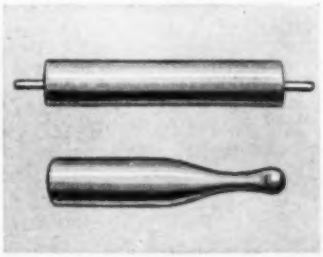
When hauling cattle in my truck, the bed of which has a sheet-steel floor, I spread a shovelful or two of ground limestone over the bottom. Straw is then placed over the whole area. Sand does not work, but crushed limestone sticks well, and the stone and straw serve to keep cattle from slipping.—*A. A. K., Missouri.*



A discarded plowshare makes a good scraper for cleaning barn floors and cement walks. I cut off the point and then weld on an iron rod about 5/8" in diameter for a handle. I sharpened the share a little on the emery wheel. This really works very well, since there is a little weight in the share, to make it take hold better.—*N. S., Minnesota.*

I use snaps instead of nails for hangers in the barn. The snaps are fastened to the wall with staples. Because of the spring catch, pails or anything else hung on the snaps will not fall off.—*A. G. H., Wisconsin.*

Using a sharp knife and a rasp, I trimmed down an old rubber clothes-wringer roll to look like a small baseball bat. It is the best thing I've ever used to loosen tight milk-can lids easily and without marring them.



After it had been shaped to fit the hand, I sawed off both ends of the steel shaft with a hacksaw. Any washing-machine dealer can furnish you with an old discarded wringer roll.—*W. M. H., Illinois.*

Successful Farming* will pay $5 for each item upon publication. You are invited to send us your ideas. We consider each one carefully, but regret we cannot return those not published.—*The Editors

FEED CHART for MARKET HOGS

With TERRAMYCIN in RATION

342 lbs. of feed per 100 lbs. of pork

SAVING 55 LBS. OF FEED

With NO TERRAMYCIN in RATION

397 lbs. of feed per 100 lbs. of pork

(Terramycin-fed hogs also reached market weight 17 days sooner)

The happy hog in the picture is completely satisfied with his ration containing a supplement fortified with Terramycin. Hog raisers are well satisfied with Terramycin, too—because it saves feed, as you can see from the chart above. In this experiment station test, 55 pounds of feed were saved at market weight. On top of that, the Terramycin-fed hogs reached market weight 17 days ahead of the others! With your fall pig crop approaching full feed, see your feed dealer. Tell him you want hog feeds and concentrates that contain Terramycin, best antibiotic for hogs. Feed Terramycin all the way to market!

Terramycin

...from the world's largest producer of antibiotics

Pfizer

Chas. Pfizer & Co., Inc., Brooklyn 6, New York
Headquarters for antibiotics and vitamins for animal health and nutrition

Cookies for Gifts

EASY... they're made from a mix

DELICIOUS... they're Betty Crocker recipes

HOLIDAY CRINKLES

Crisp, chewy walnut drop cookies!

Mix *thoroughly* with hands:
- **1 pkg. Betty Crocker Cake Mix — (White, Yellow, PartyCake or Chocolate Devils Food)**
- **1 medium egg**
- **2 tbsp. water**
- **1/2 cup chopped Diamond Walnuts**

Chill dough. Roll into balls the size of small walnuts. Place about 2-in. apart (or drop dough by rounded teaspoonfuls) on ungreased cooky sheet. Top with ½ walnut. Bake about 10 min., or until lightly browned, in quick moderate oven (375°). (Do not overbake. Cookies will be soft when done, crisp when cool.) Makes about 3½ doz. cookies. These cake mixes are Betty Crocker recipes all measured out!

CHRISTMAS GEMS

Quick, easy rolled cookies!

Mix *thoroughly* with hands:
- **1 pkg. Betty Crocker Cake Mix — (White, Yellow, PartyCake or Chocolate Devils Food)**
- **1 medium egg**
- **1 tbsp. water**
- **1/2 cup finely chopped Diamond Walnuts**

Roll very thin (1/16-in.). Cut into desired shapes. Place on ungreased cooky sheet. Bake 5 to 7 min., or until delicately browned, in quick moderate oven (375°). Cookies may be sprinkled with colored sugar before baking, or decorated as desired after baking. Makes about 7 dozen merry Christmas cookies. Such a festive gift! So good, too. Only premium quality ingredients go into Betty Crocker Cake Mixes.

Betty Crocker CAKE MIXES

THE ONLY NATIONAL BRAND TO BRING YOU THAT SPECIAL HOMEMADE GOODNESS BECAUSE YOU ADD THE EGGS!